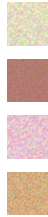


Back of the house
Main concert hall
Chamber music hall
Foyers and public interior



Informal venue



Building service +
maintainancen



Ironmongers (relocated)



Social housing



Public Debating Club



Music education Hub +
Rehearsal GSM and LSO



Public arcade



Staff facilities and office



Medical practice



Public living rooms



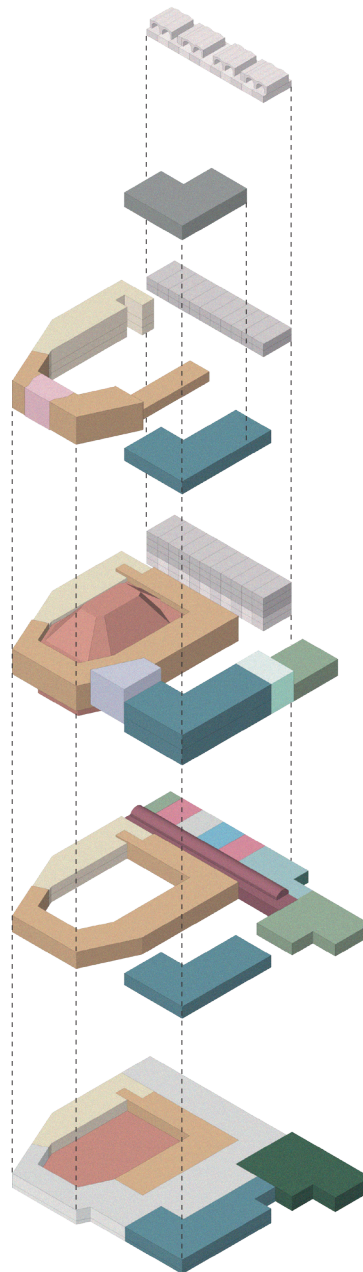
Nursery



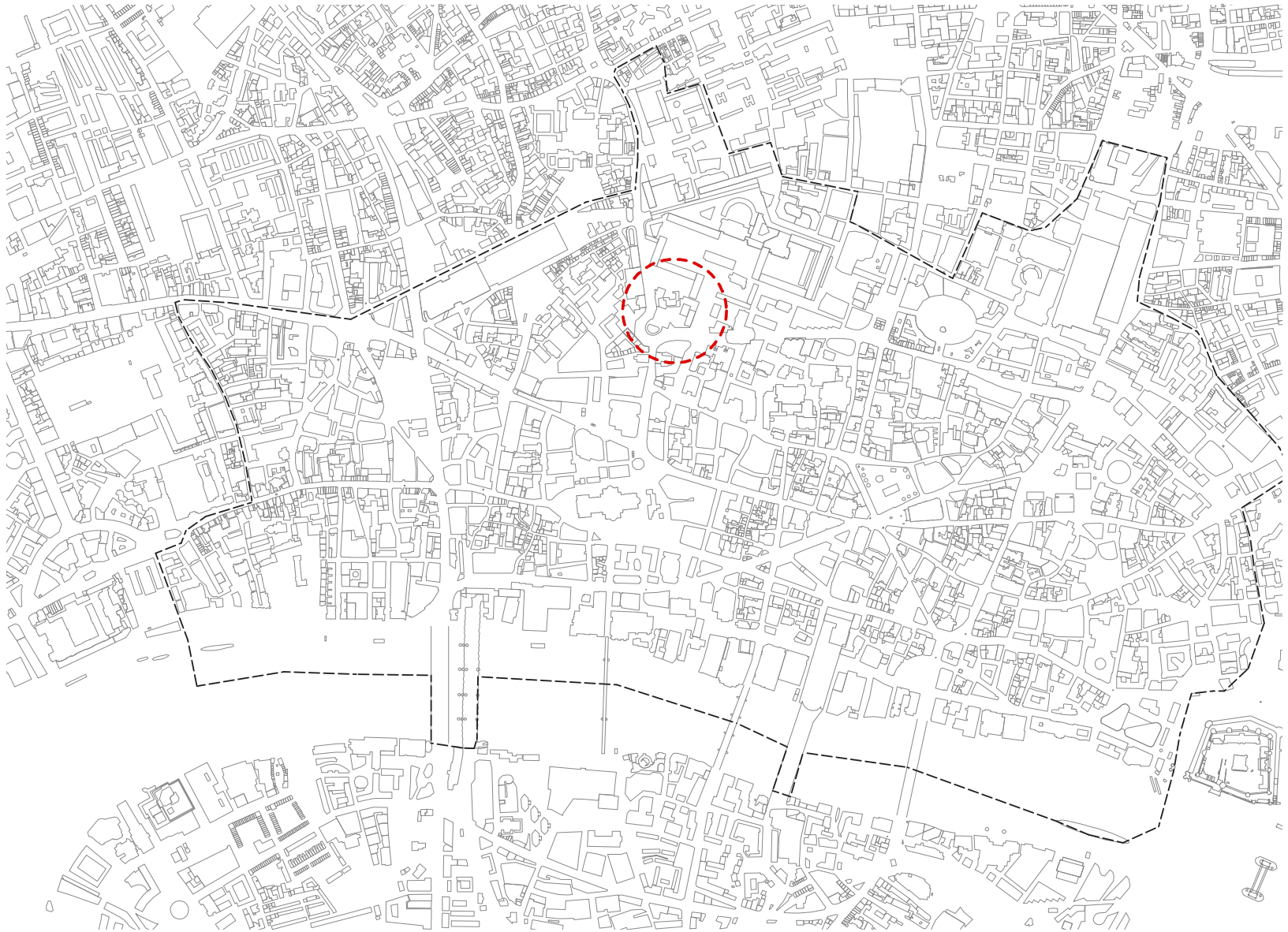
Cafe and Restaurant



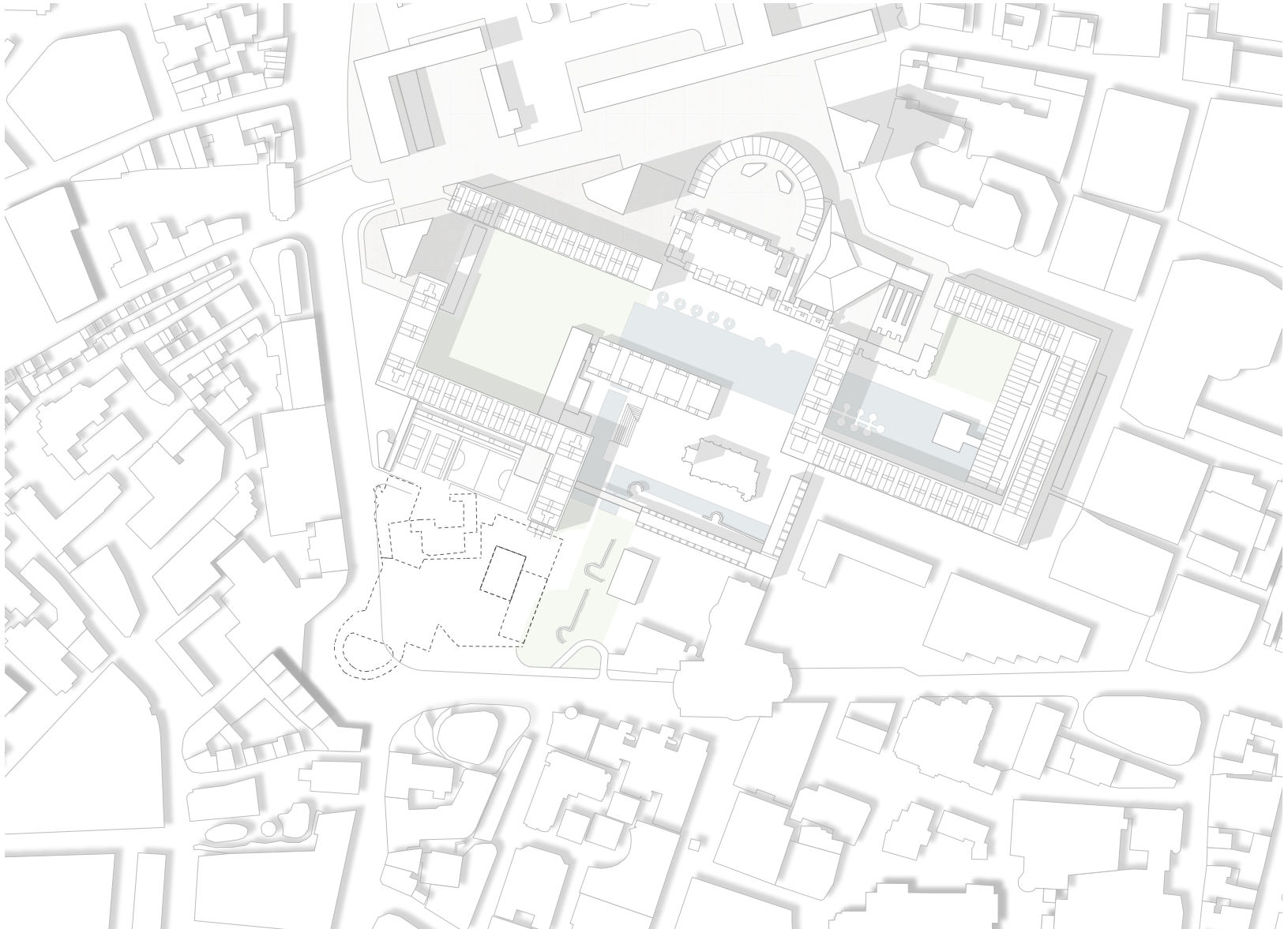
Club



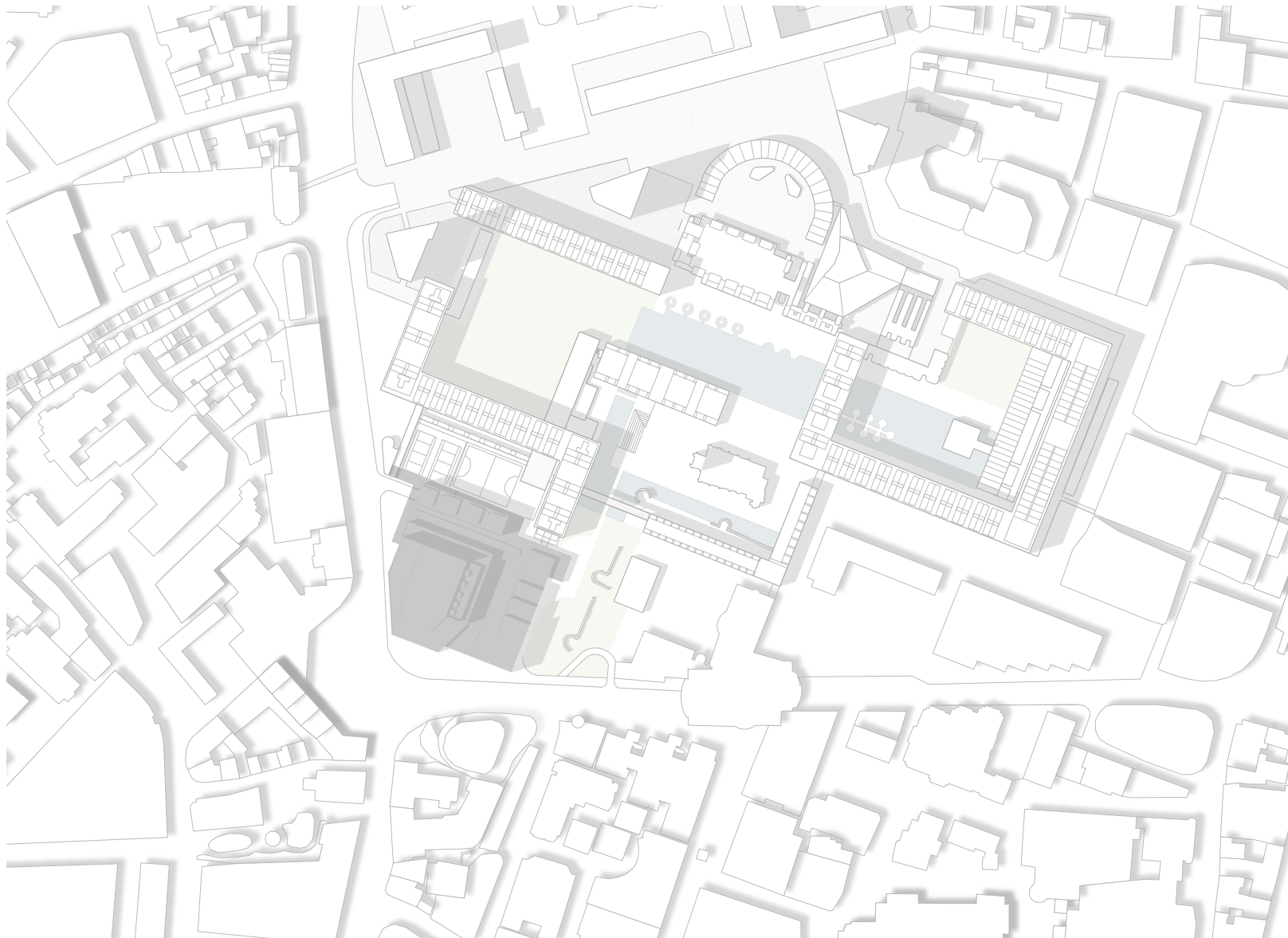
Proposal of a multi - functional and -cultural building complex.



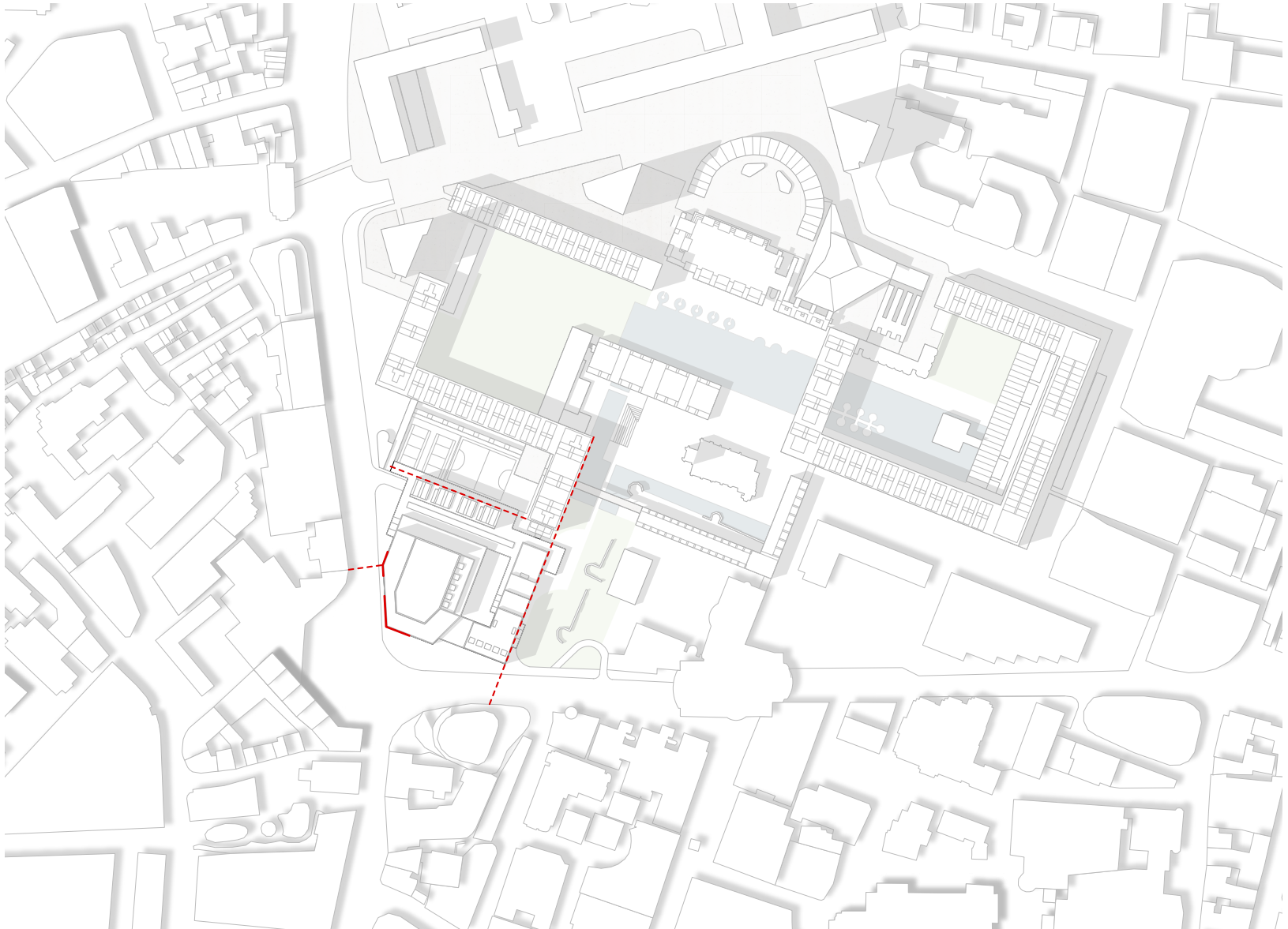
Plan showing our site within the City of London boundaries.



1. Removing of existing stuctures.



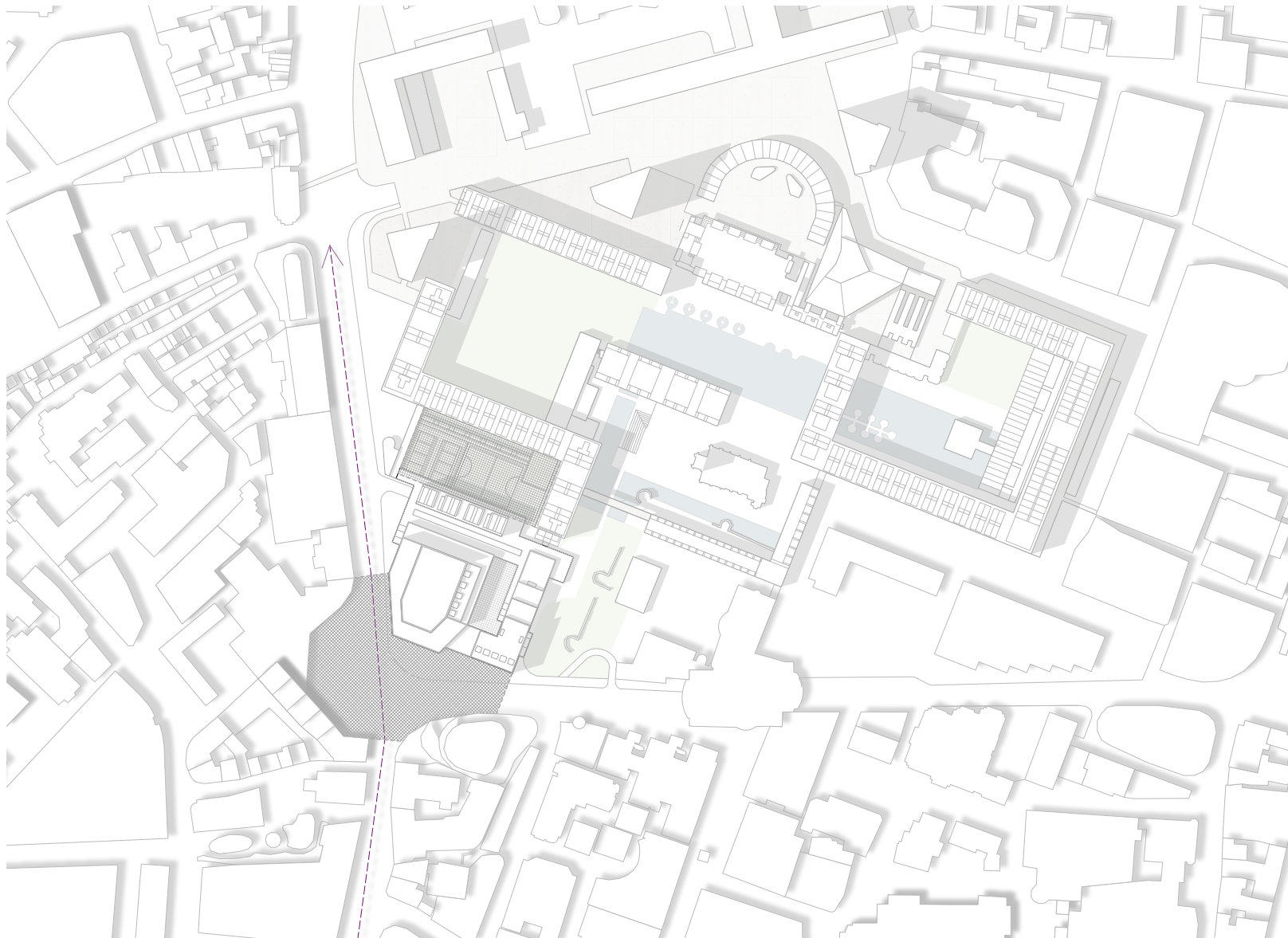
2. Setting of an urban figure of city block - size.



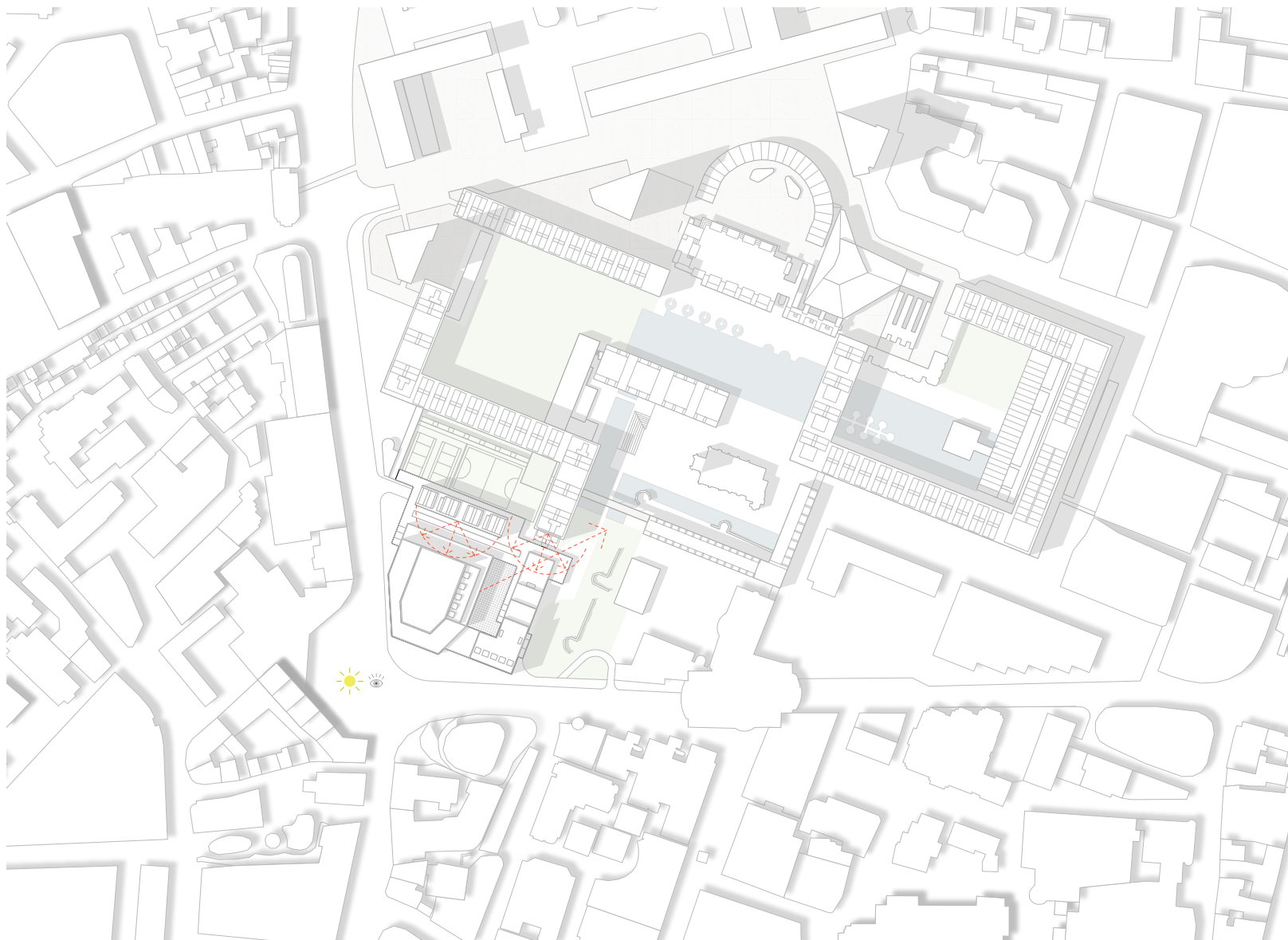
3. Strong, fixing edge, strategically bending and taking of existing lines.



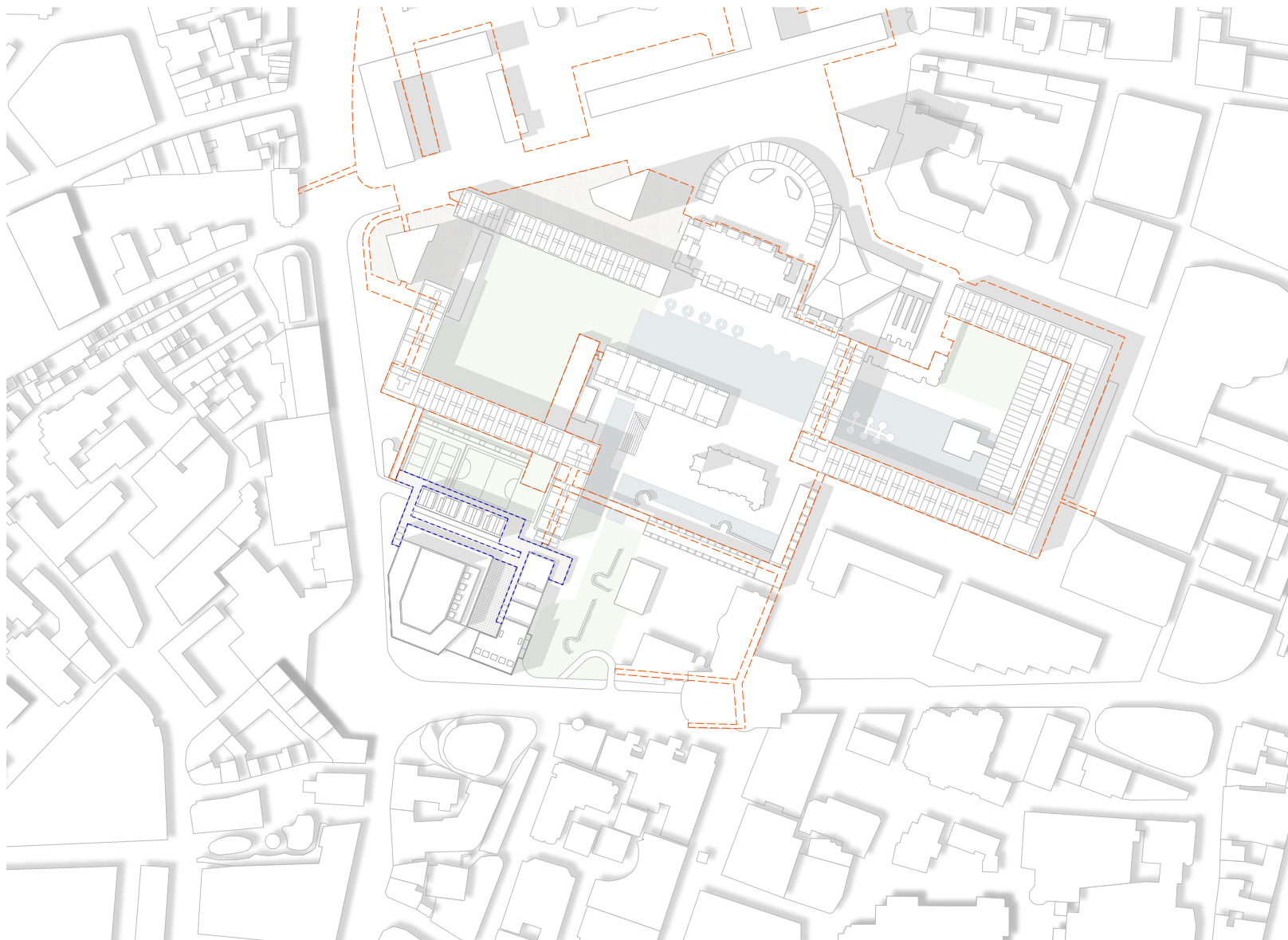
Scheme showing the juxtaposition of the grid of the Barbican against the grown city



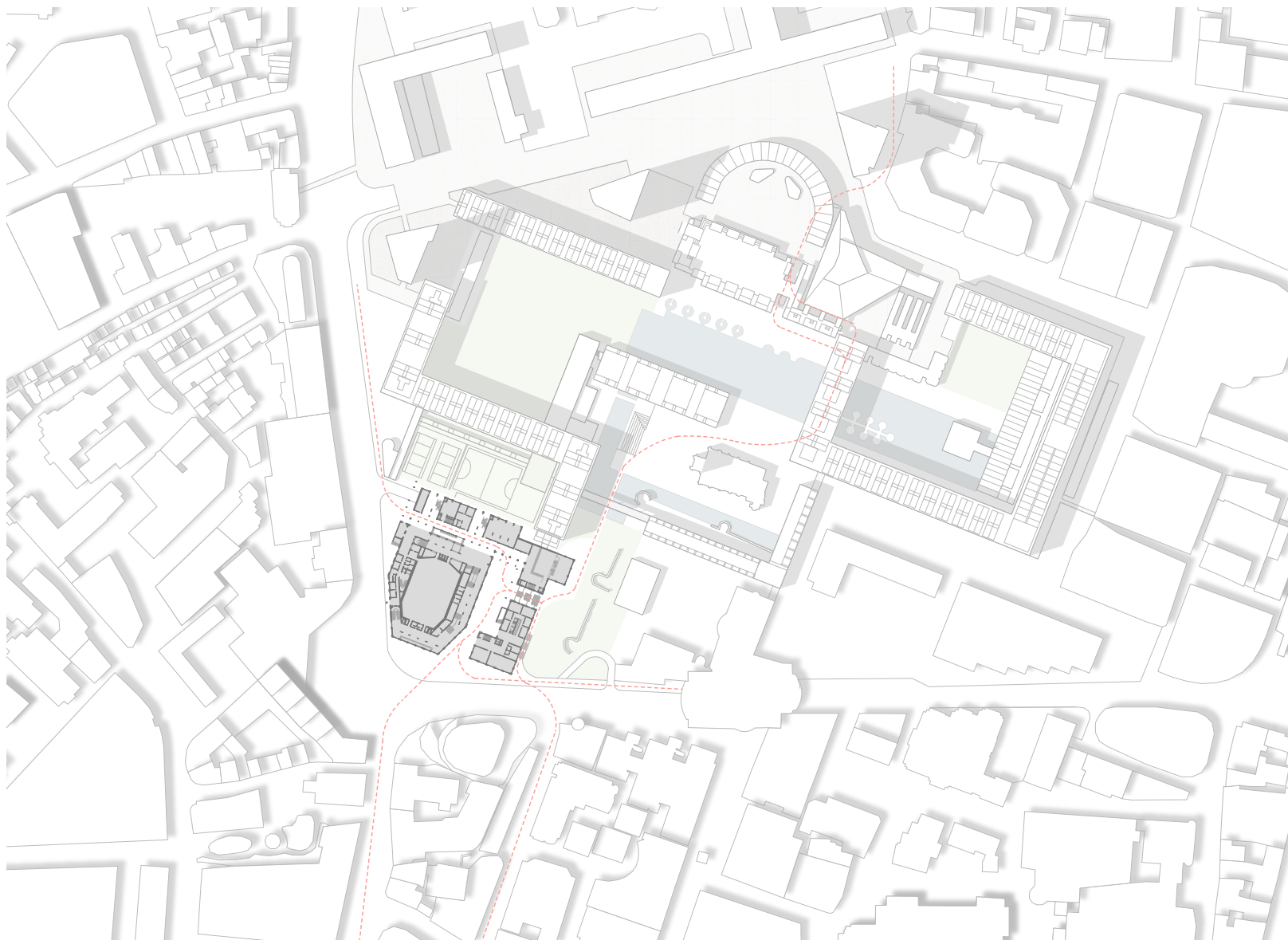
4. Newly defined city realm and closing of last Barbican court.



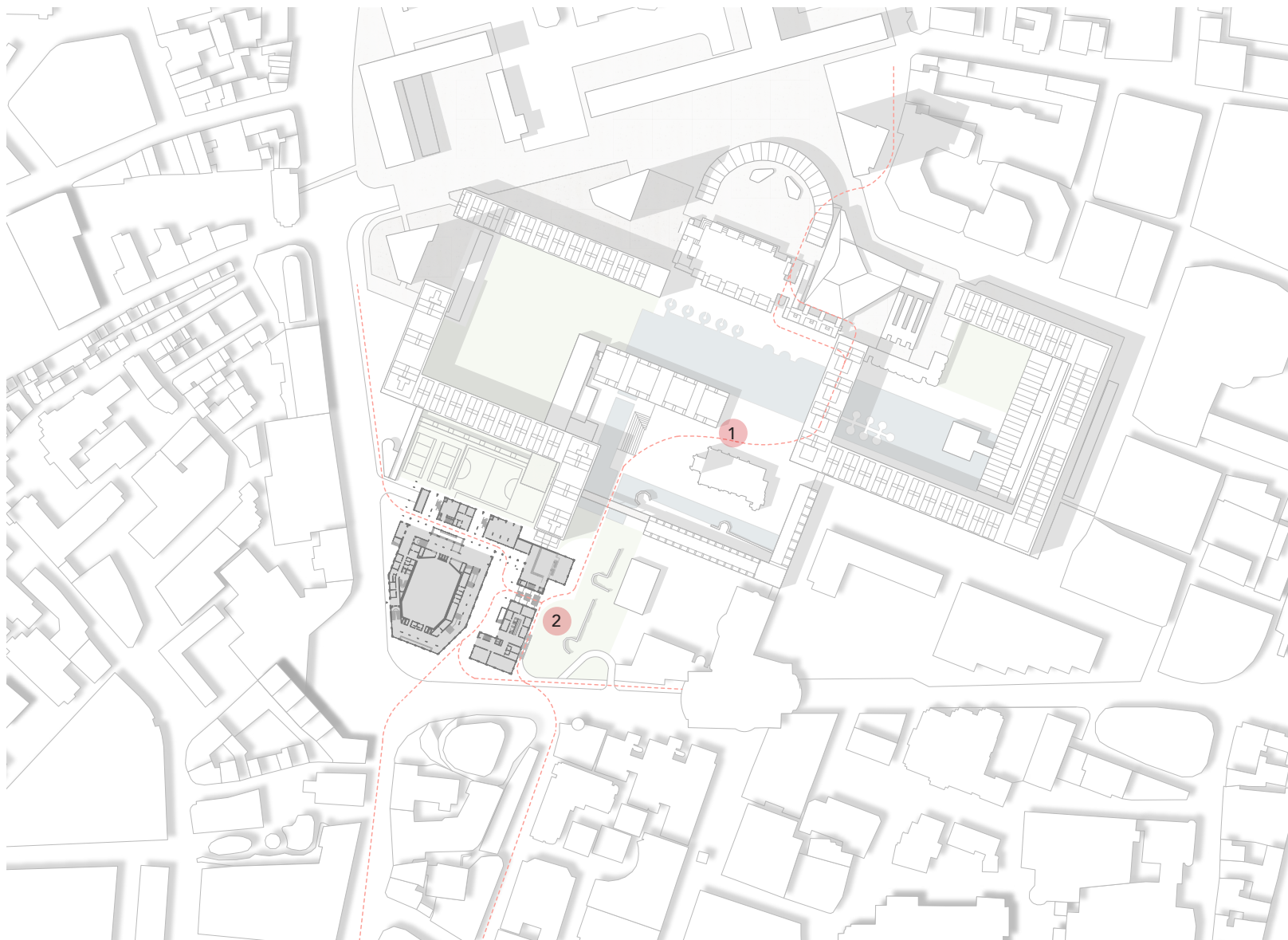
5. Distance surfaces for light and view, stepping down of volume towards north-eastern corner



6. Connection on highwalk level, opening up of the Barbican (a)



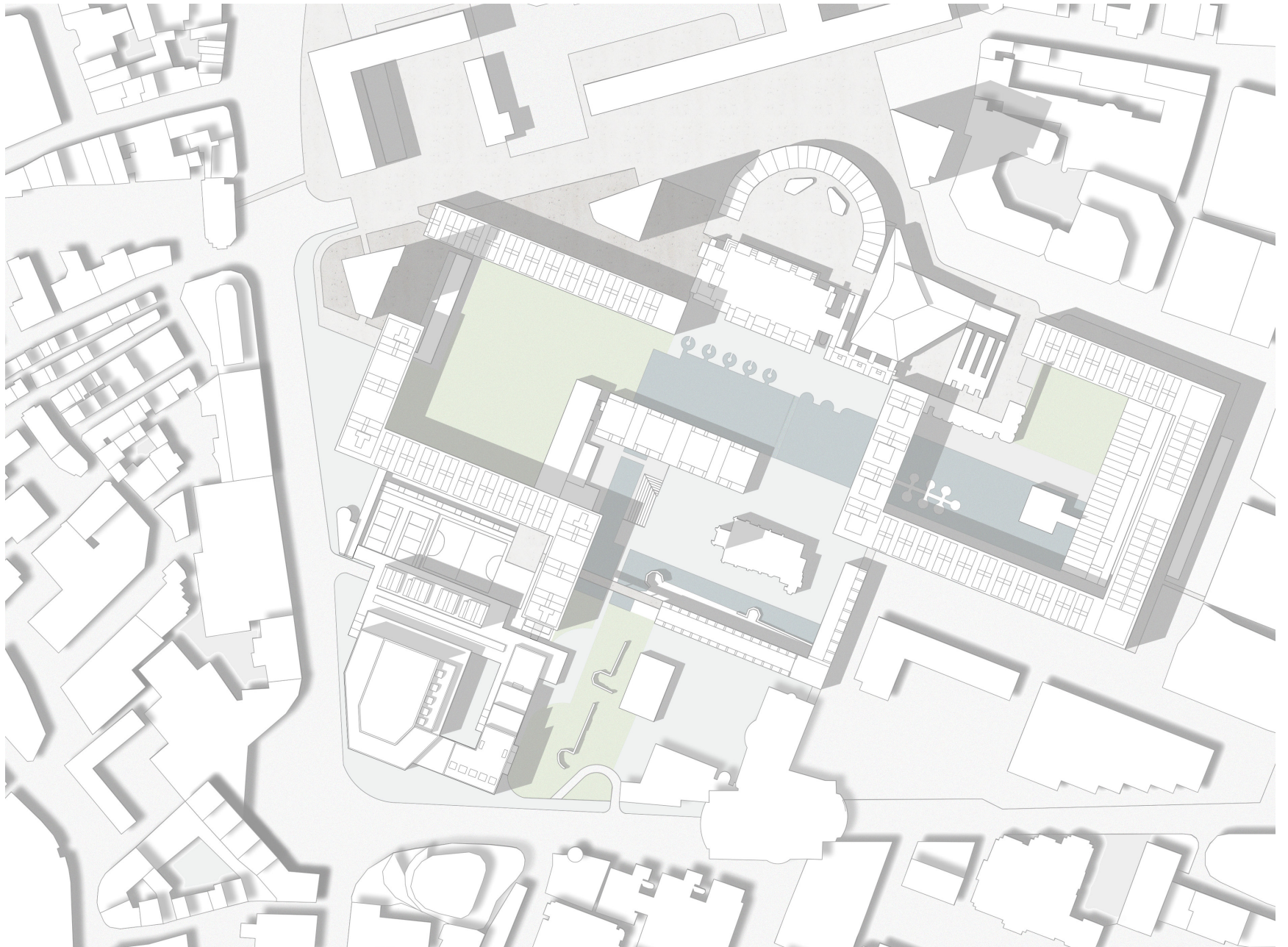
7. Connection on street and garden level - the building as gate house. Two new bridges - opening up of the Barbican (b)

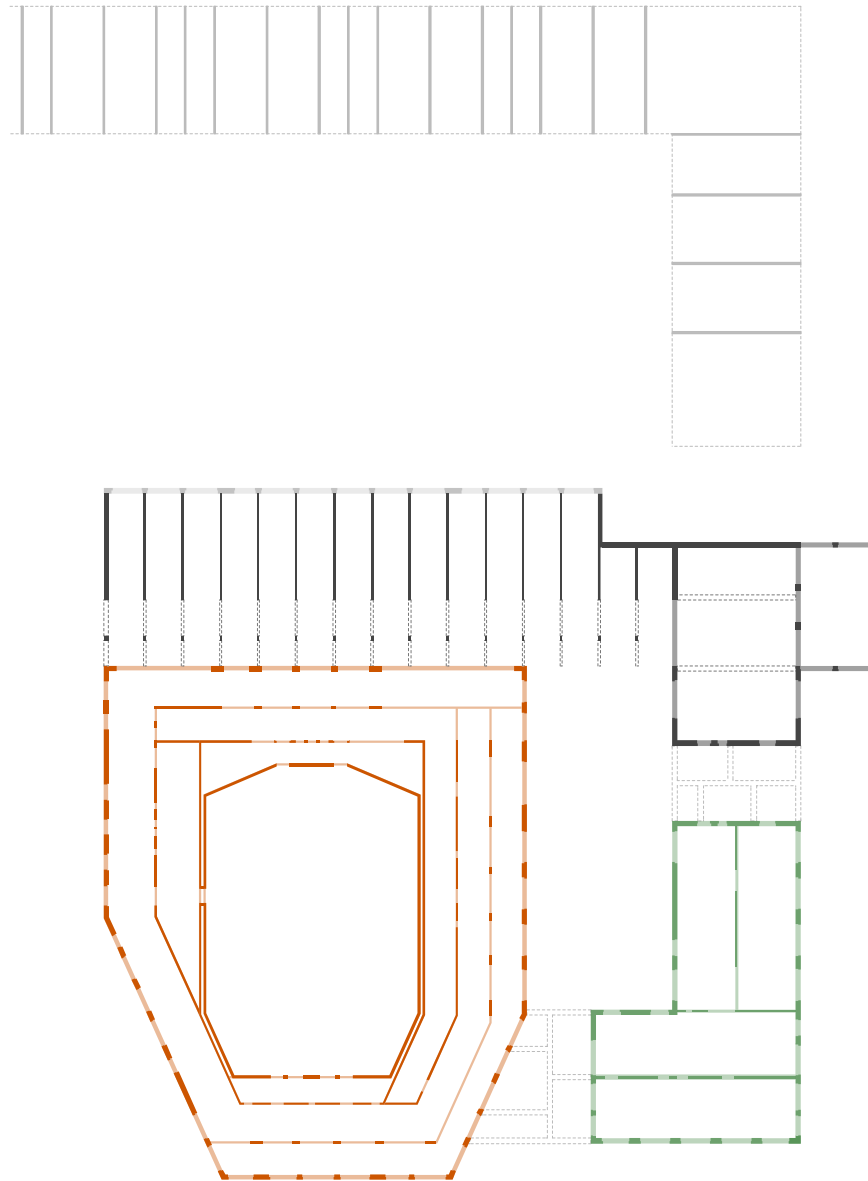


7. Connection on street and garden level - the building as gate house. Two new bridges - opening up of the Barbican (b)

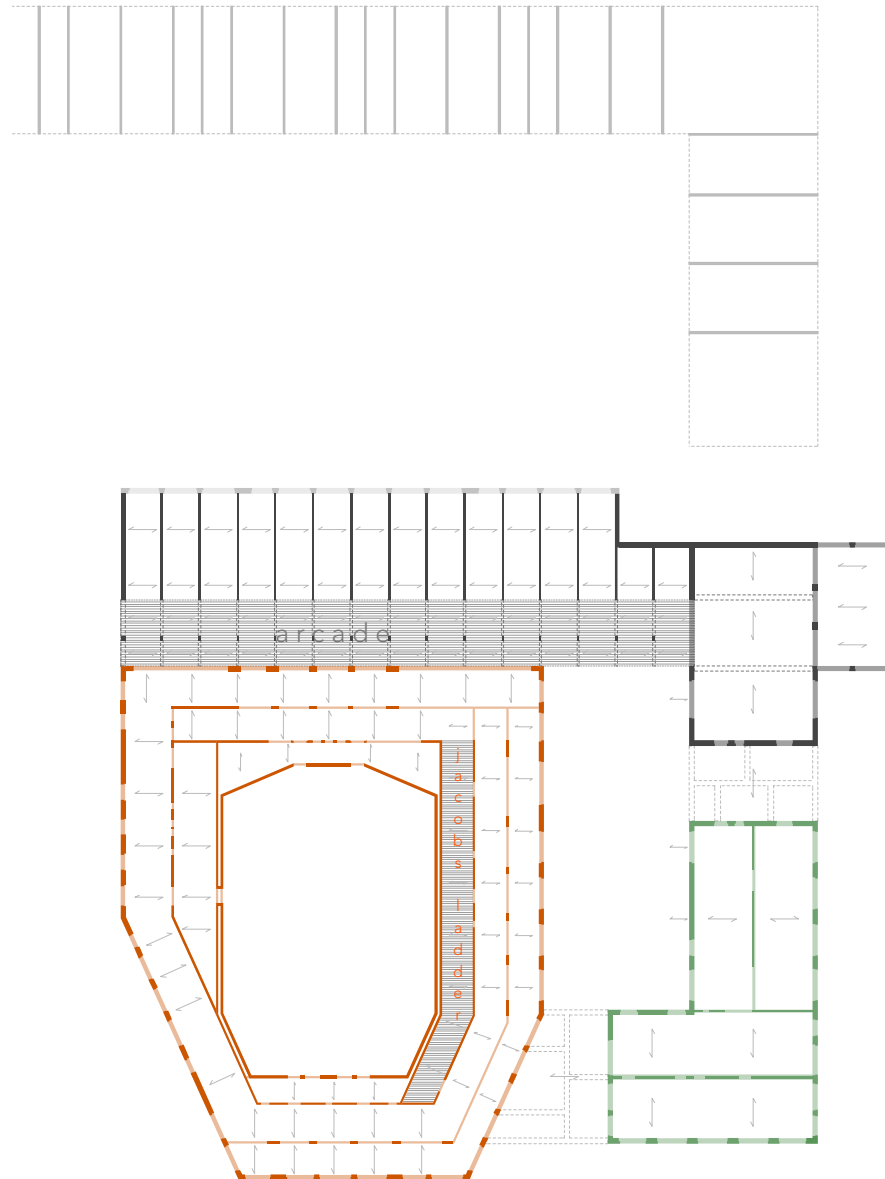


Emphasising keylock situation on of North-South as well as East-West cultural axis.

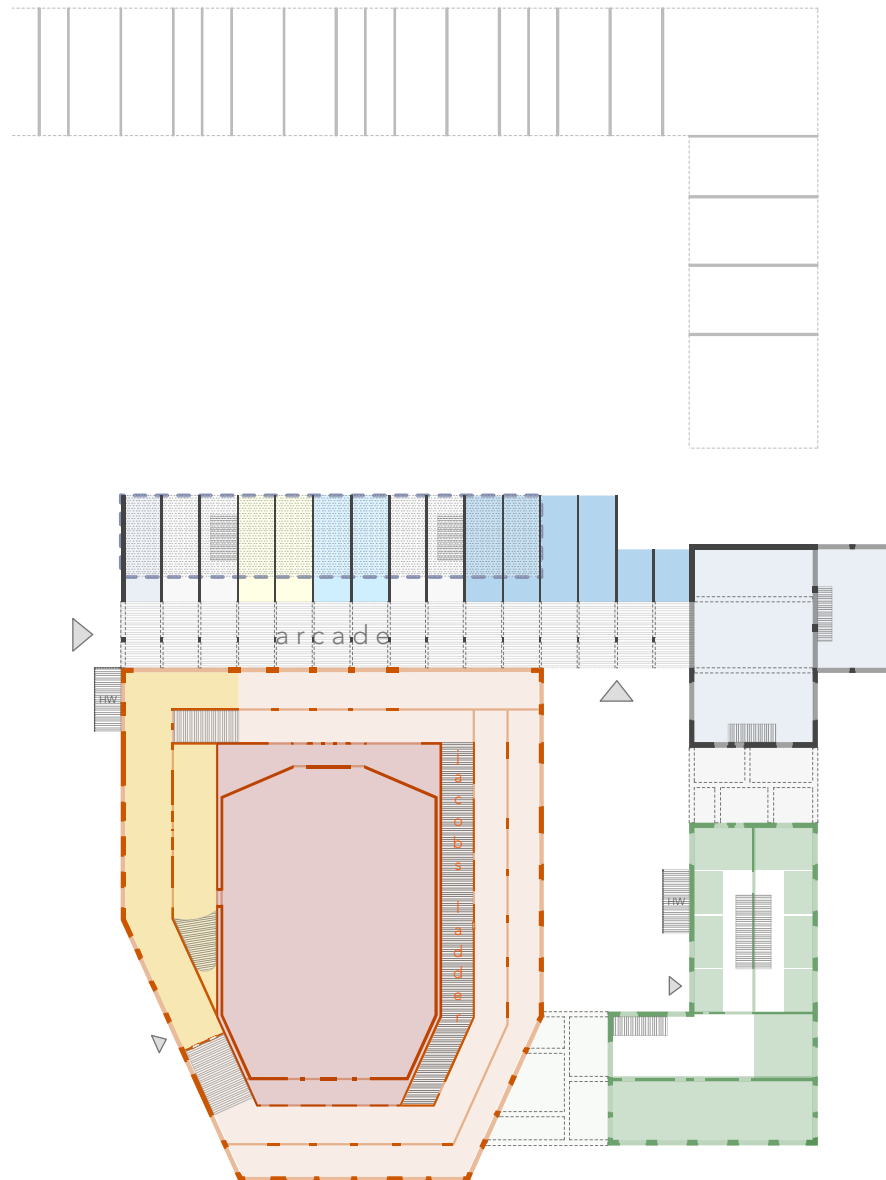




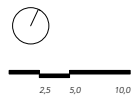
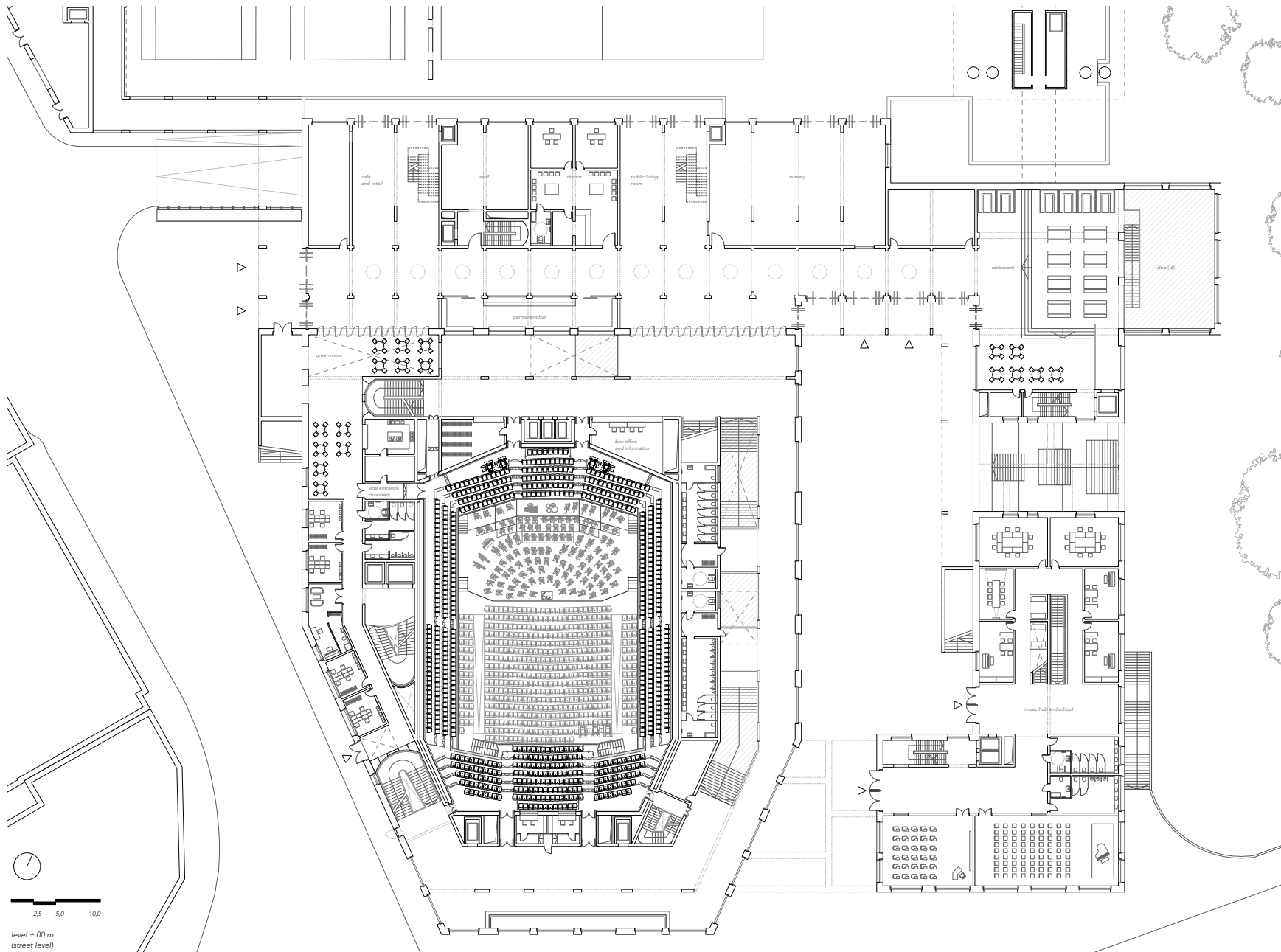
Scheme showing the three systems and their inhering logics



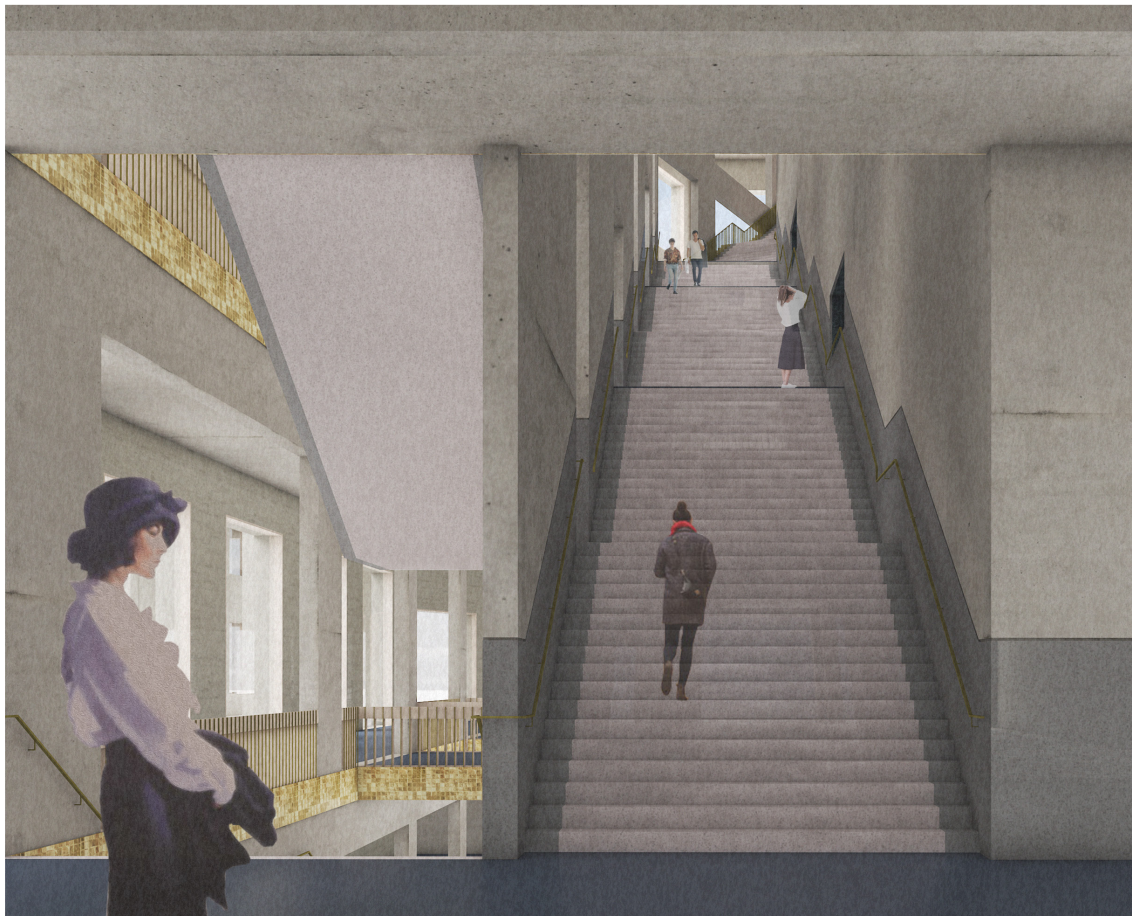
Logic of spans and idea of the two backbones



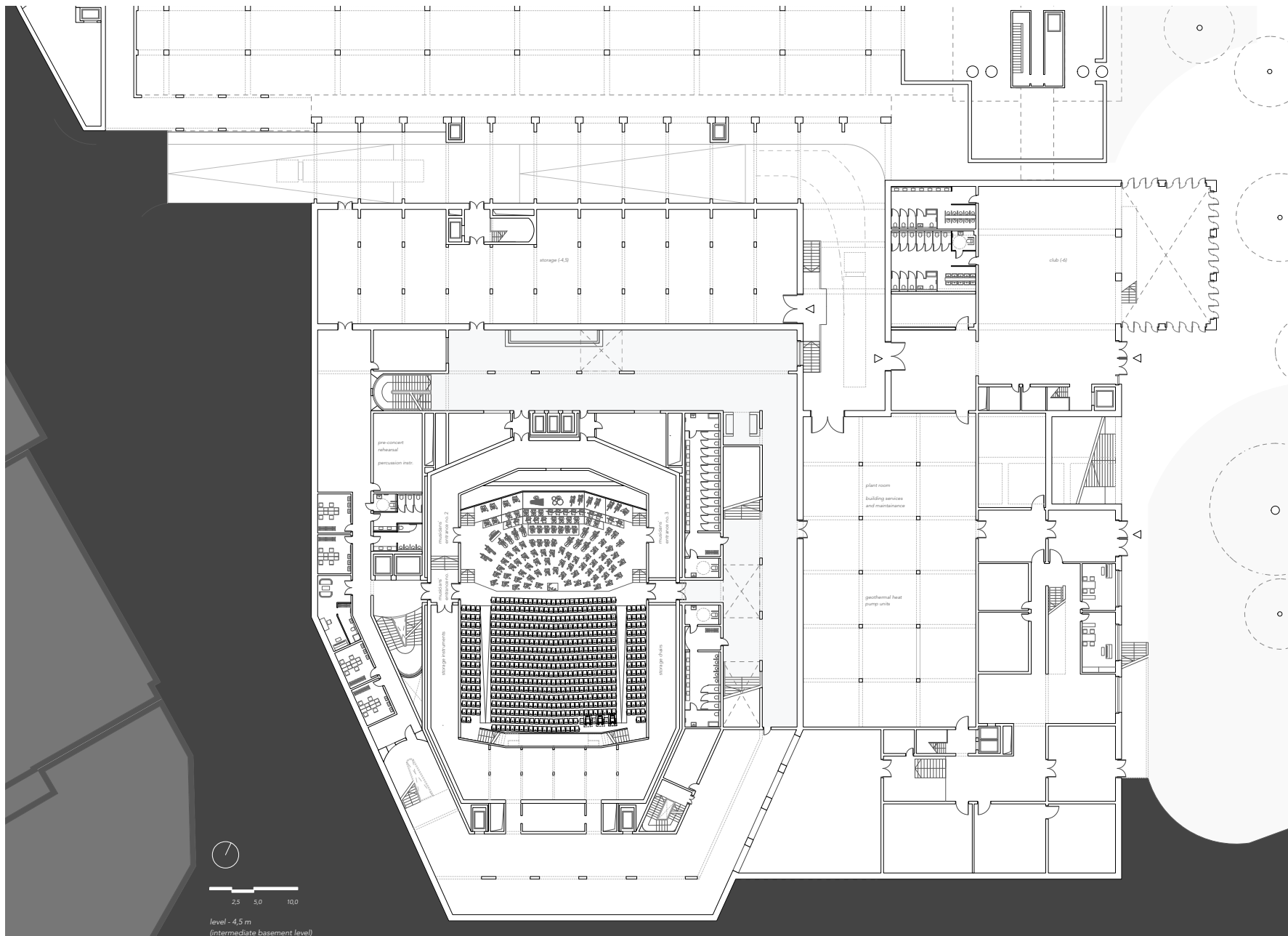
Functional diversity at ground floor level



level + 00 m
(street level)

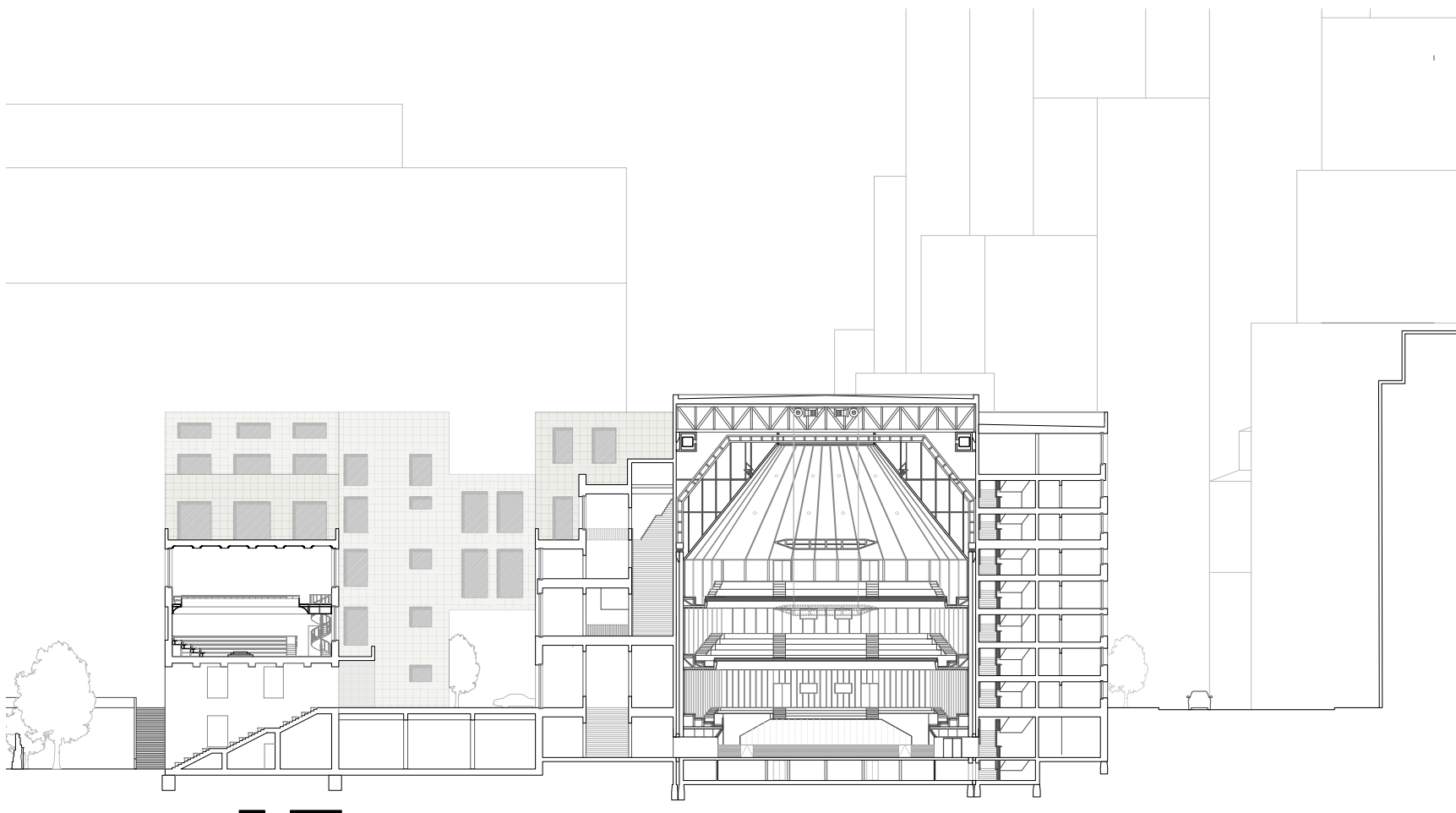


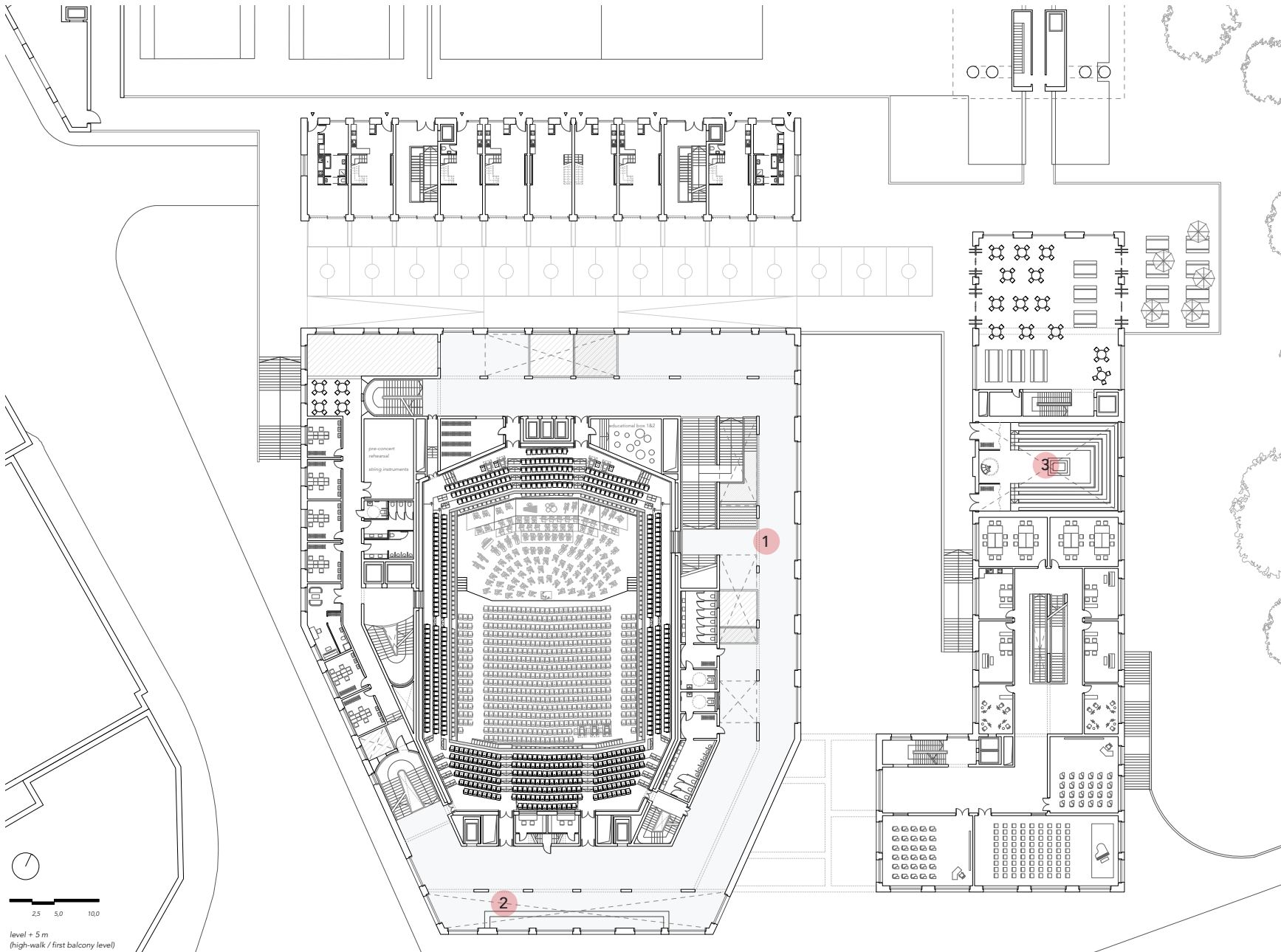
Moment before the festive act of collective as-/des-cending

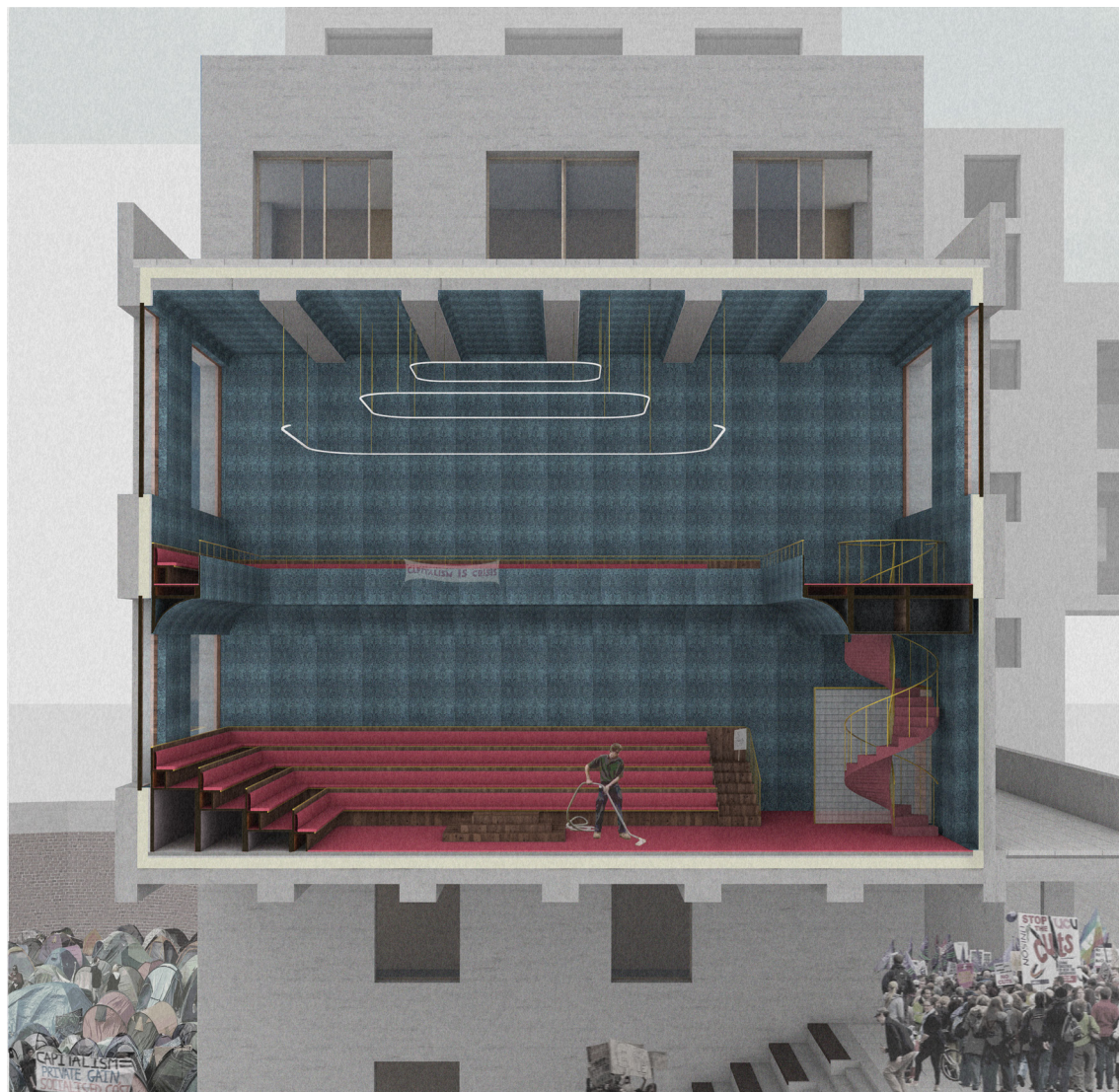




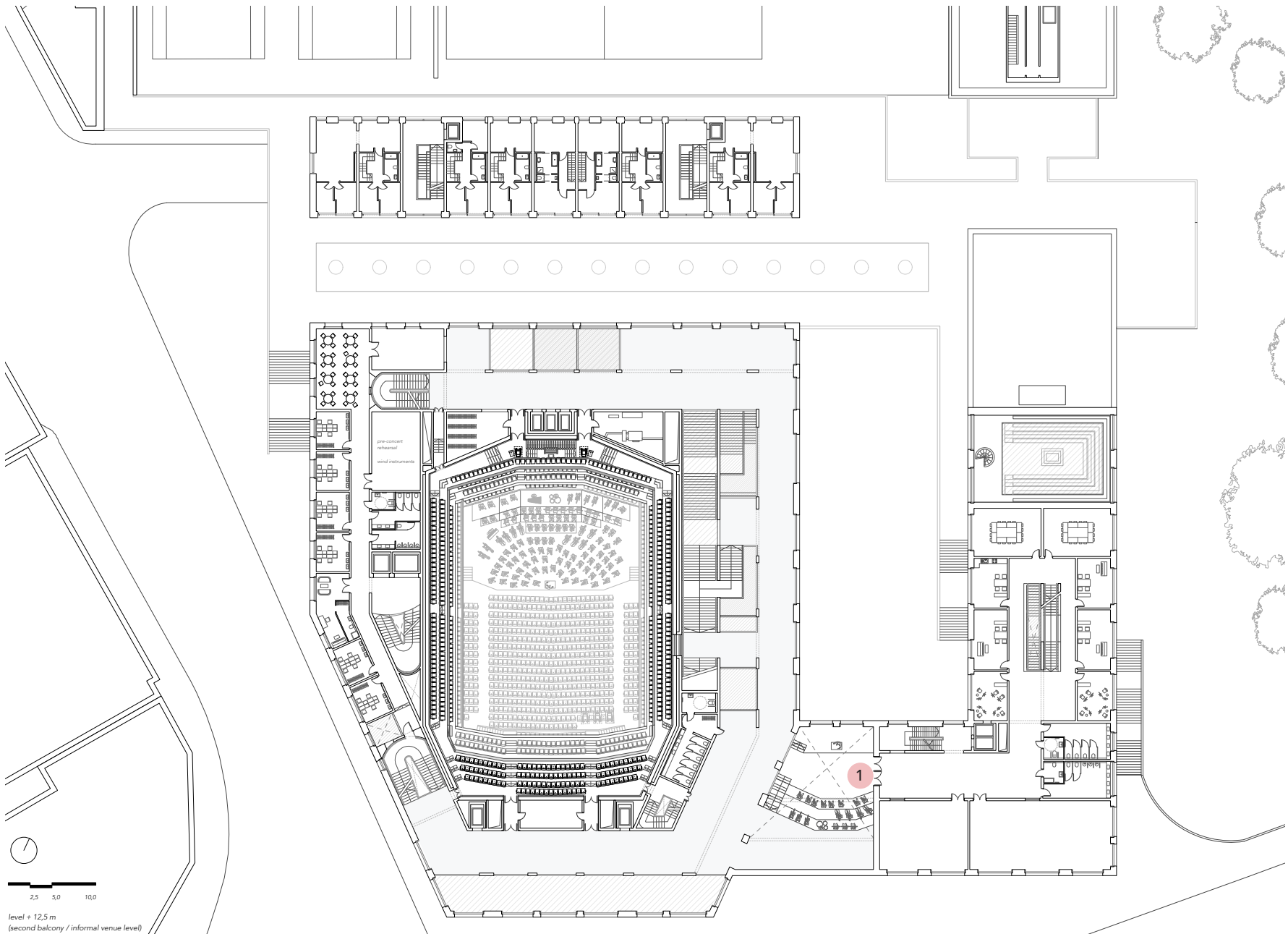
Central staircase with skylight





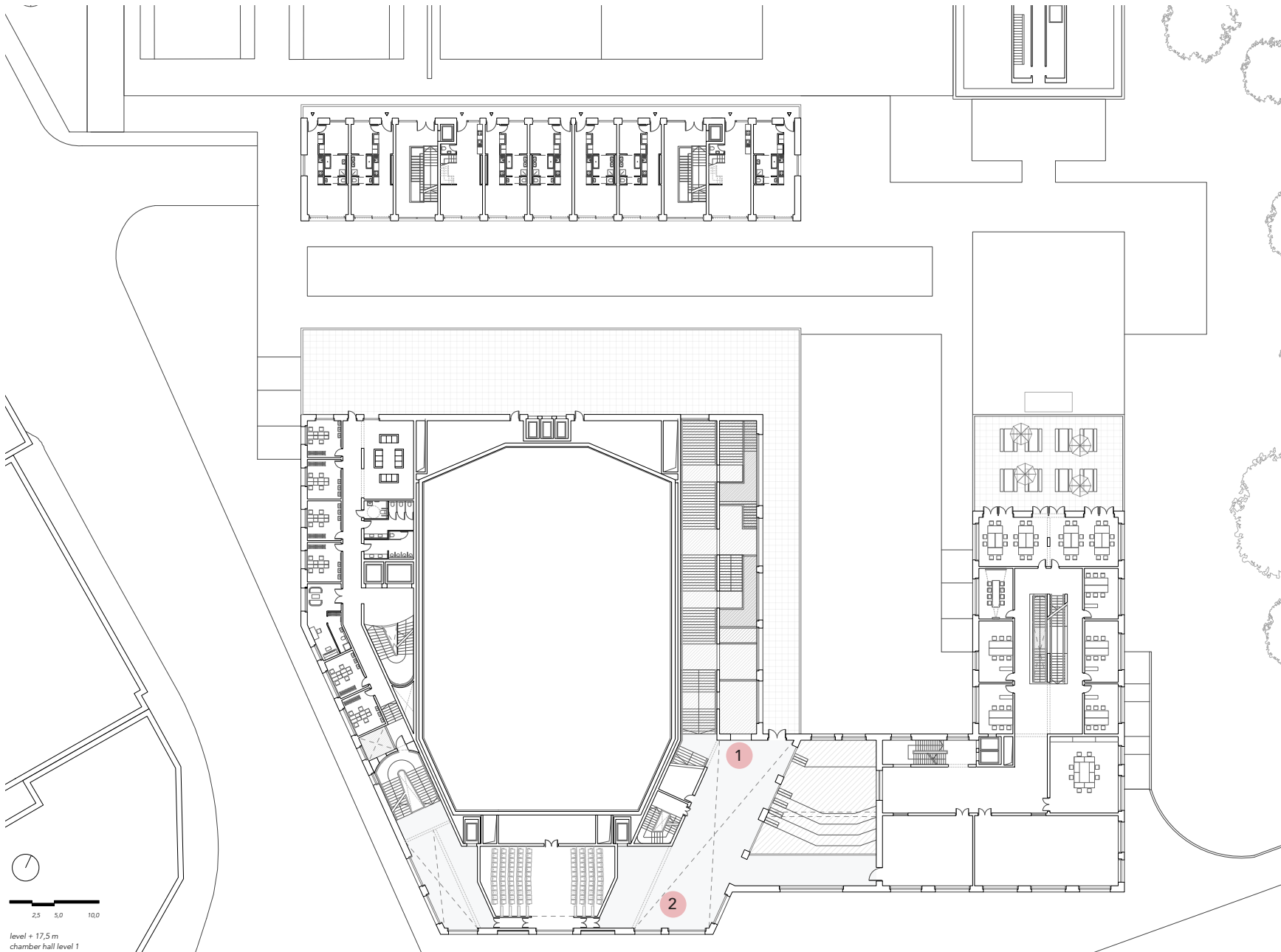


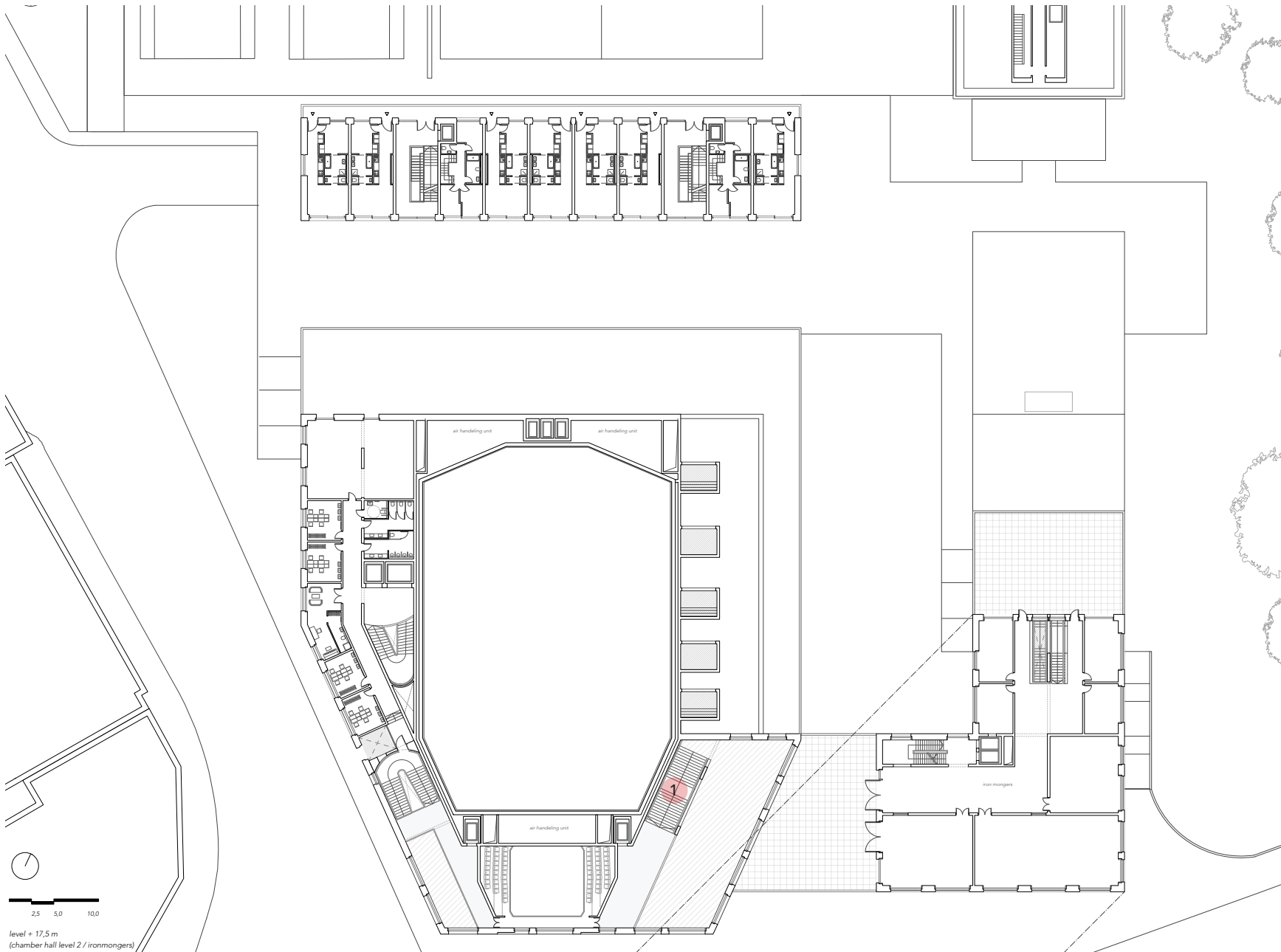
Impression, showing the interior of the public debating club.

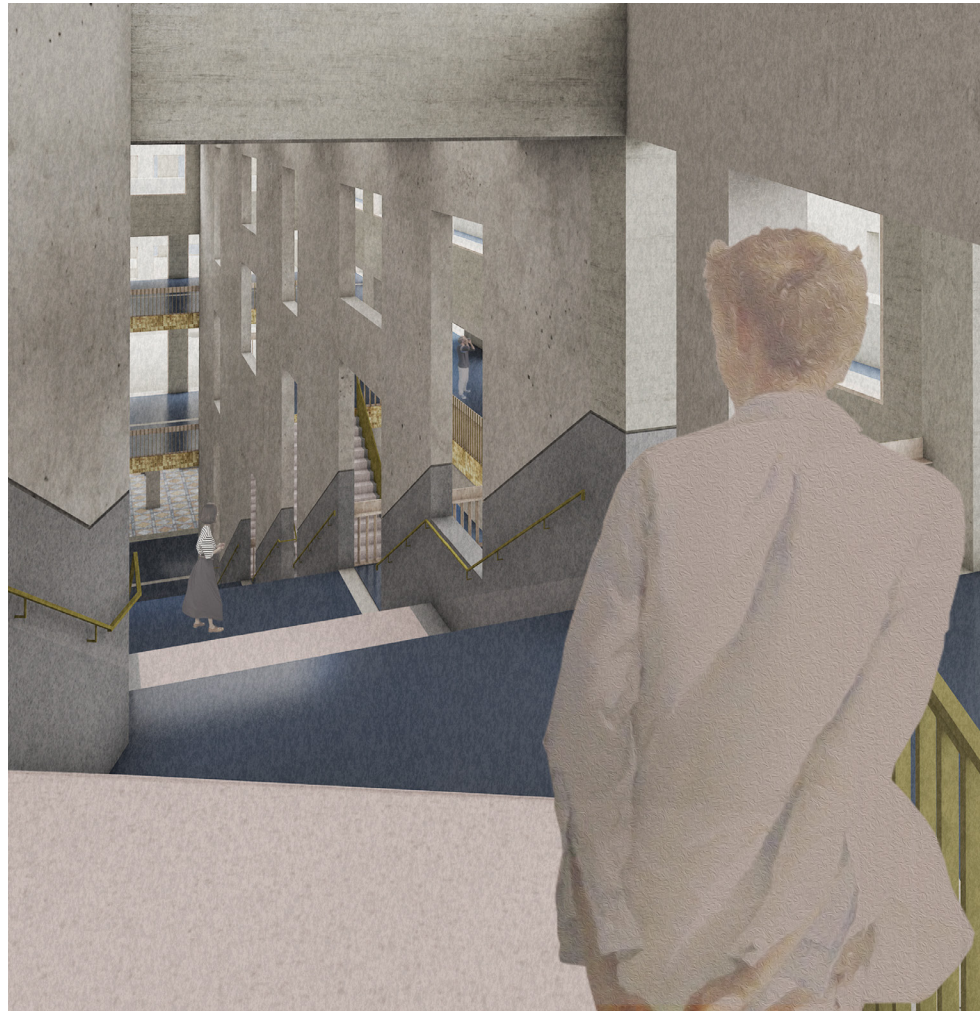


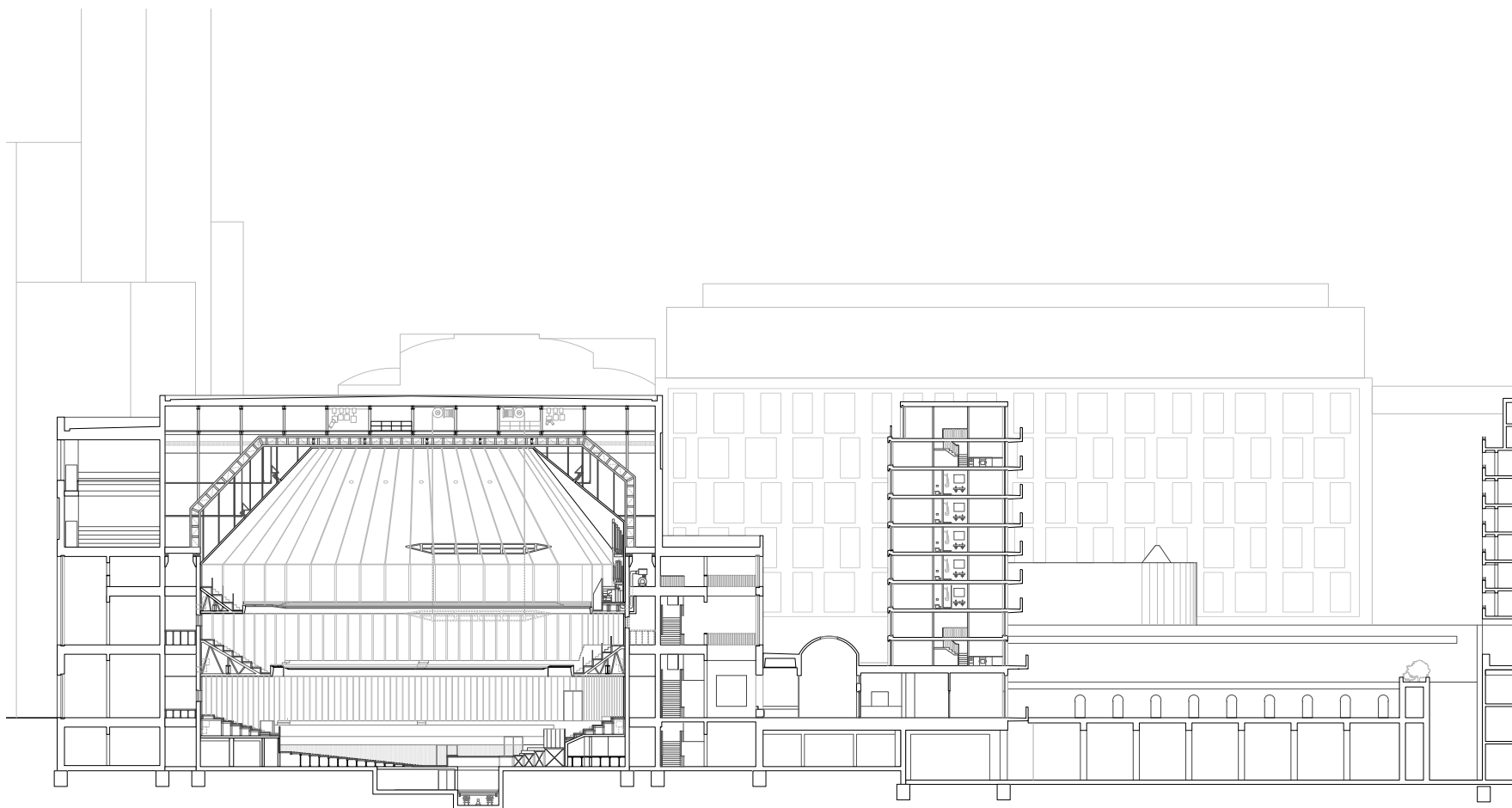


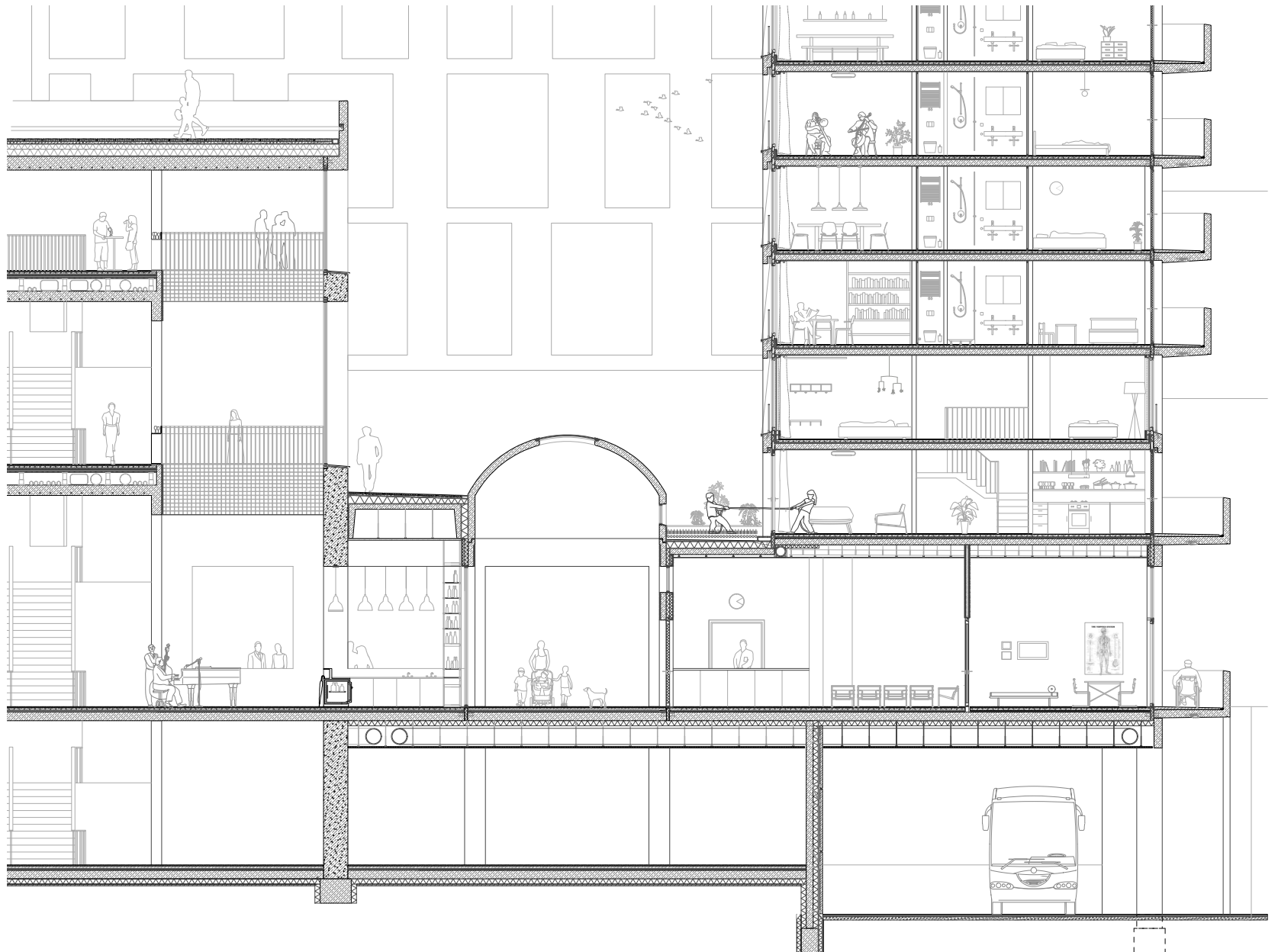
Impression, showing the interior of the informal venue.



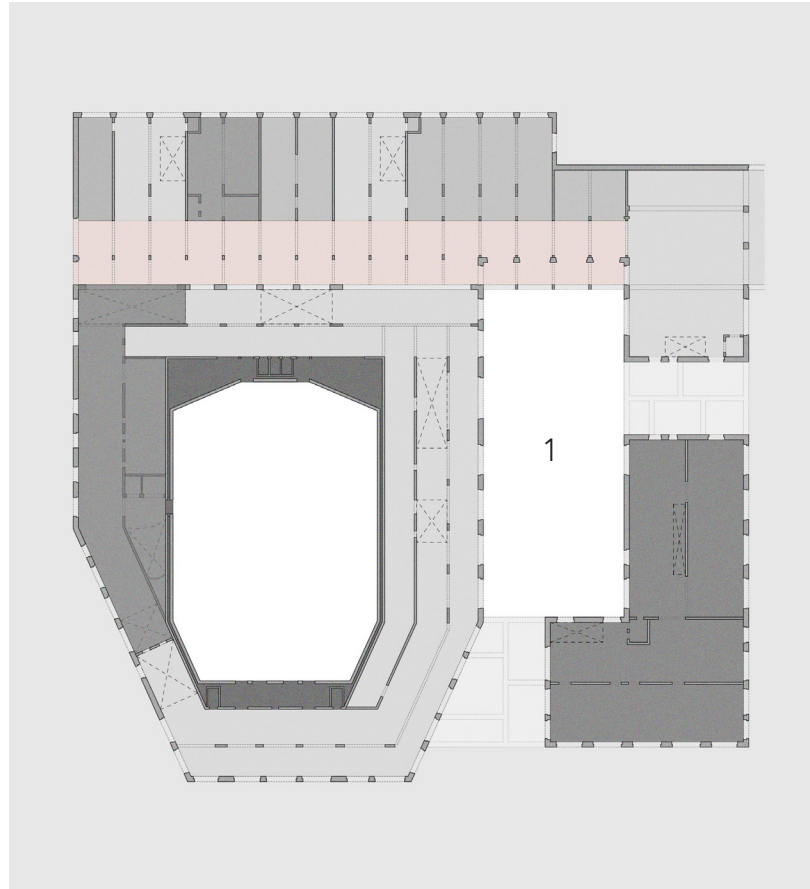




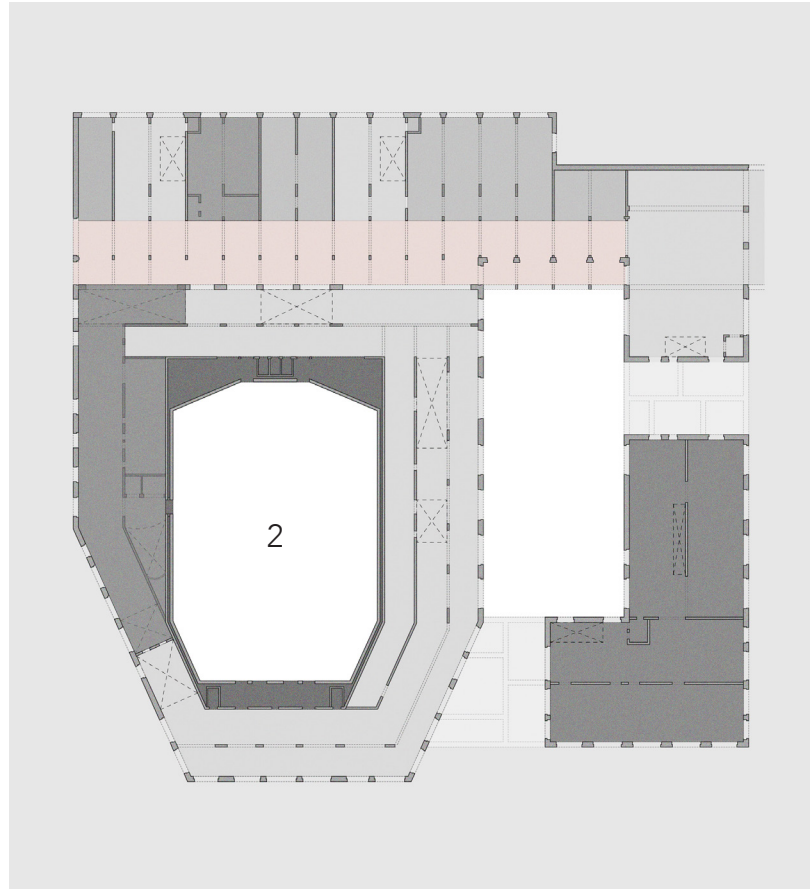




section through foyer spaces of concert hall, public arcade with medical practise and social housing block on top. View towards West.

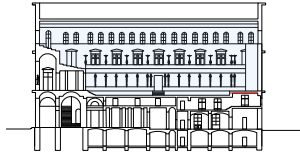


Scheme showing the two biggest rooms that are going `off the arcade

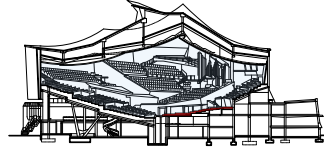


Scheme showing the two biggest rooms that are going `off the arcade

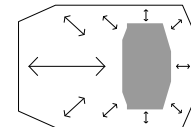
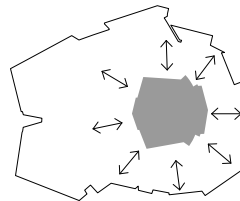
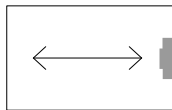
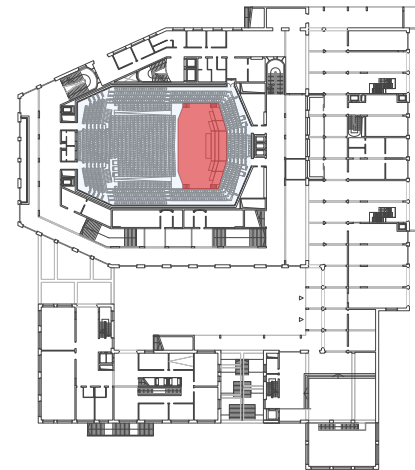
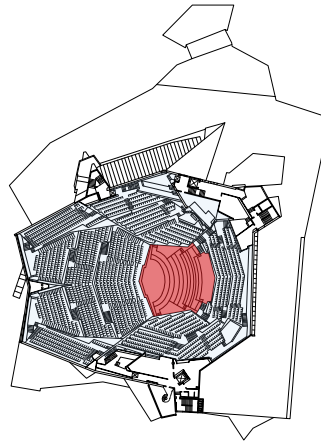
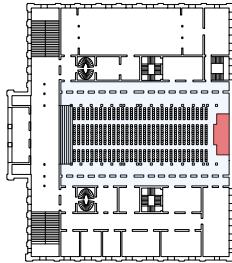
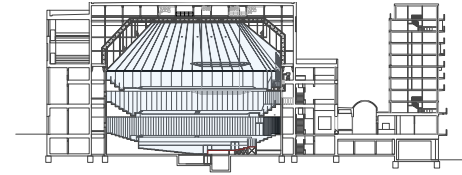
Musikverein, Vienna
- shoebox -

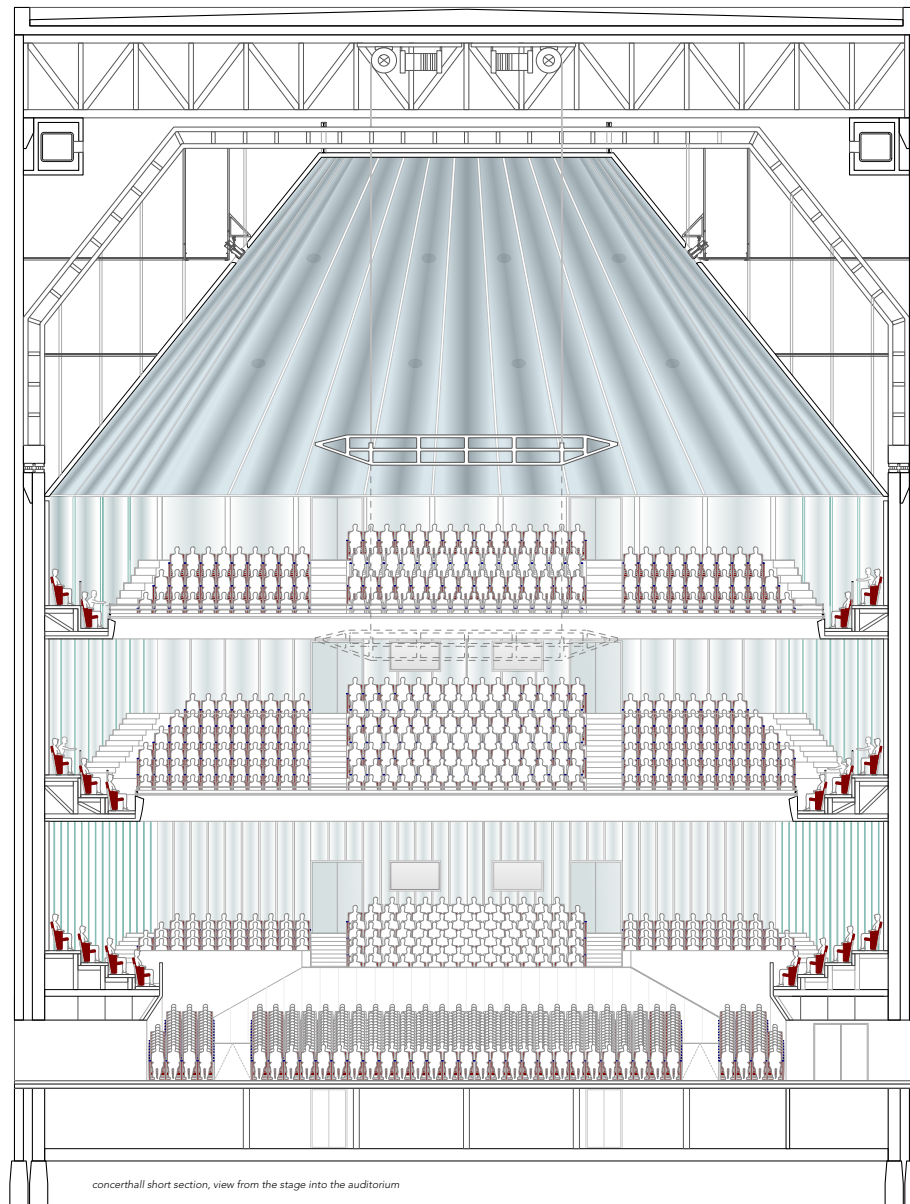


Philharmony, Berlin
- vineyard -

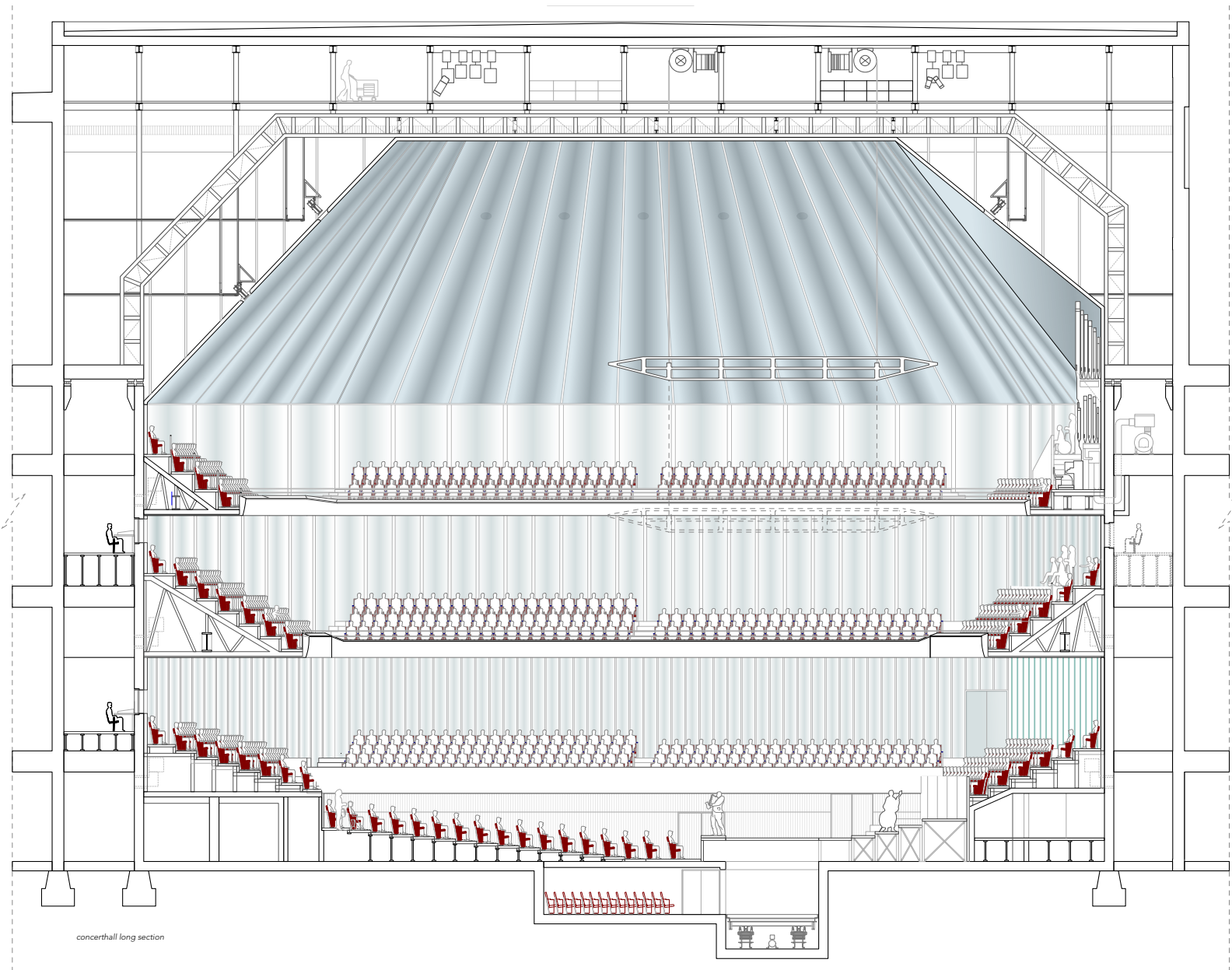


House of Music, London
- hybrid -

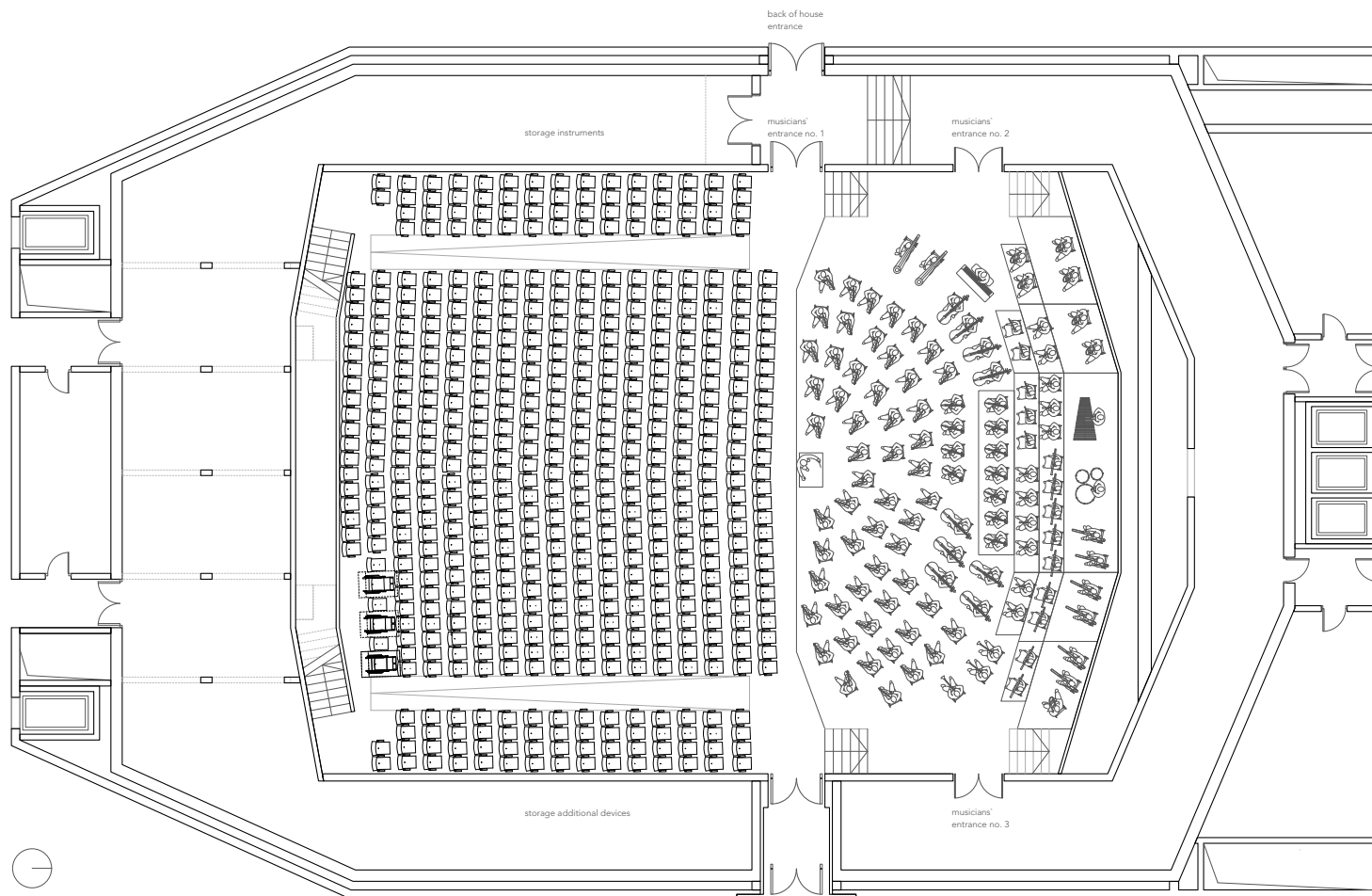




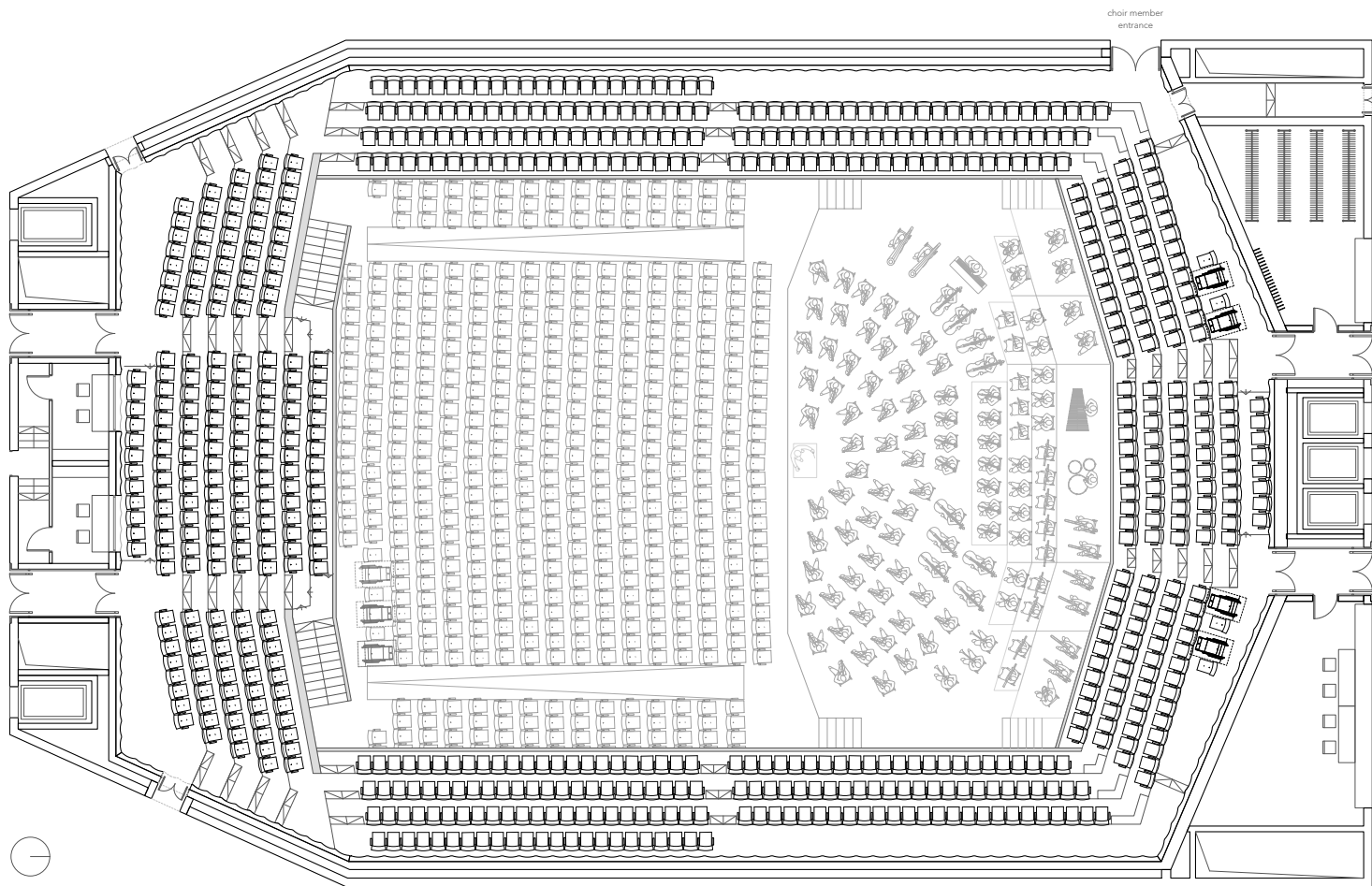
concerthall short section, view from the stage into the auditorium



concert hall long section



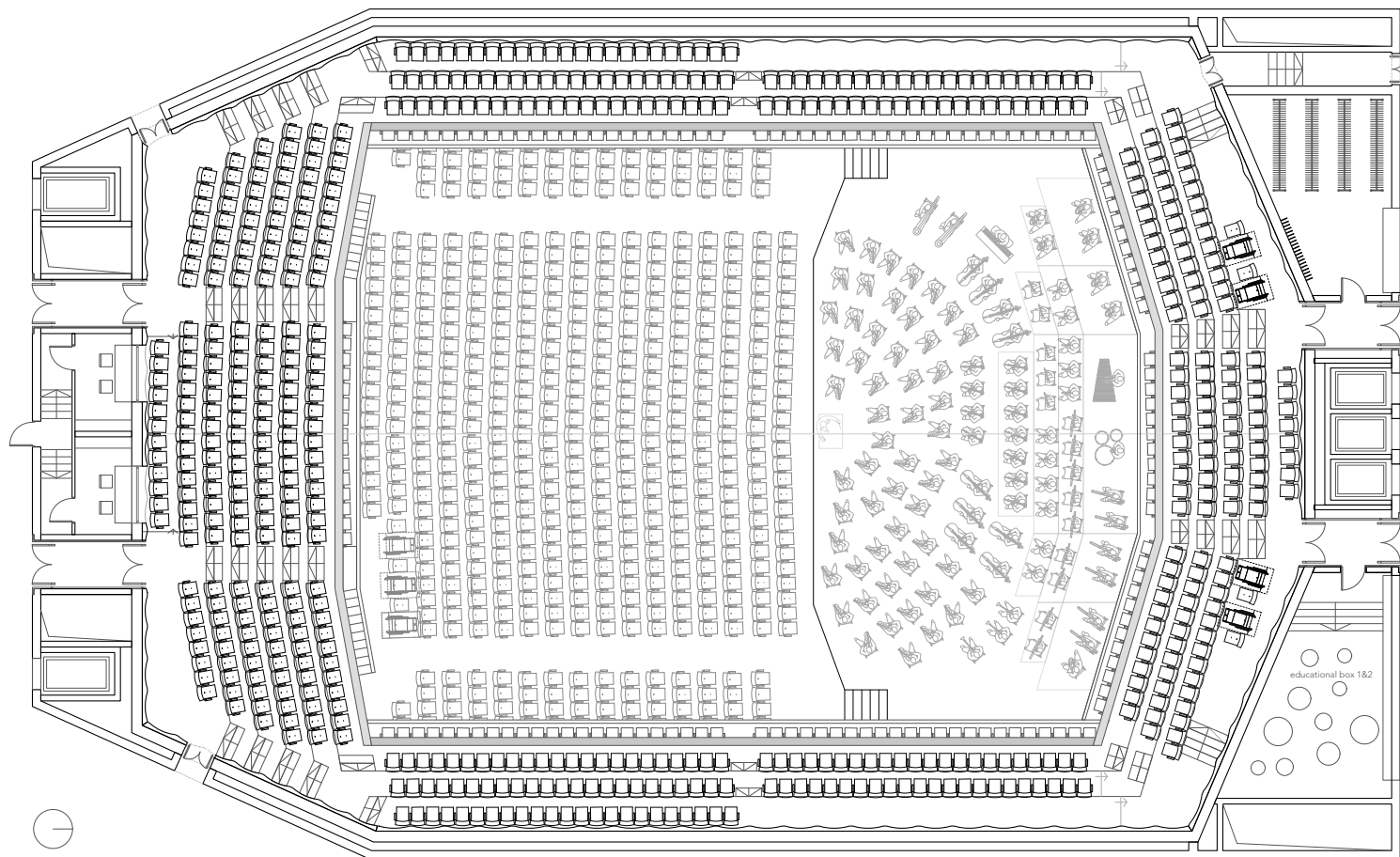

 floorplan of hall
 at - 4,5 m
 1 - 100



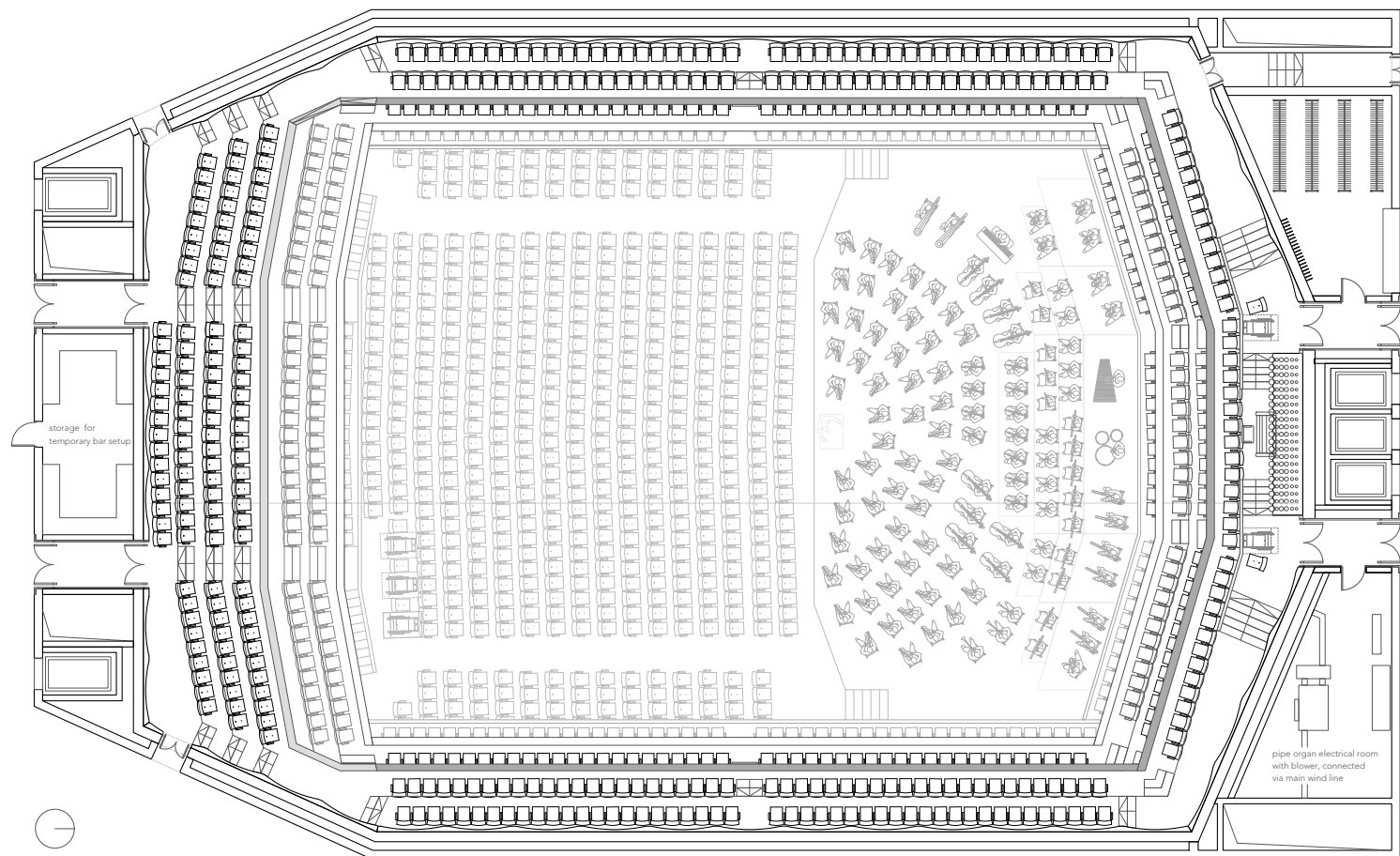
choir member
entrance



floorplan of hall
at groundfloor level
1 - 100



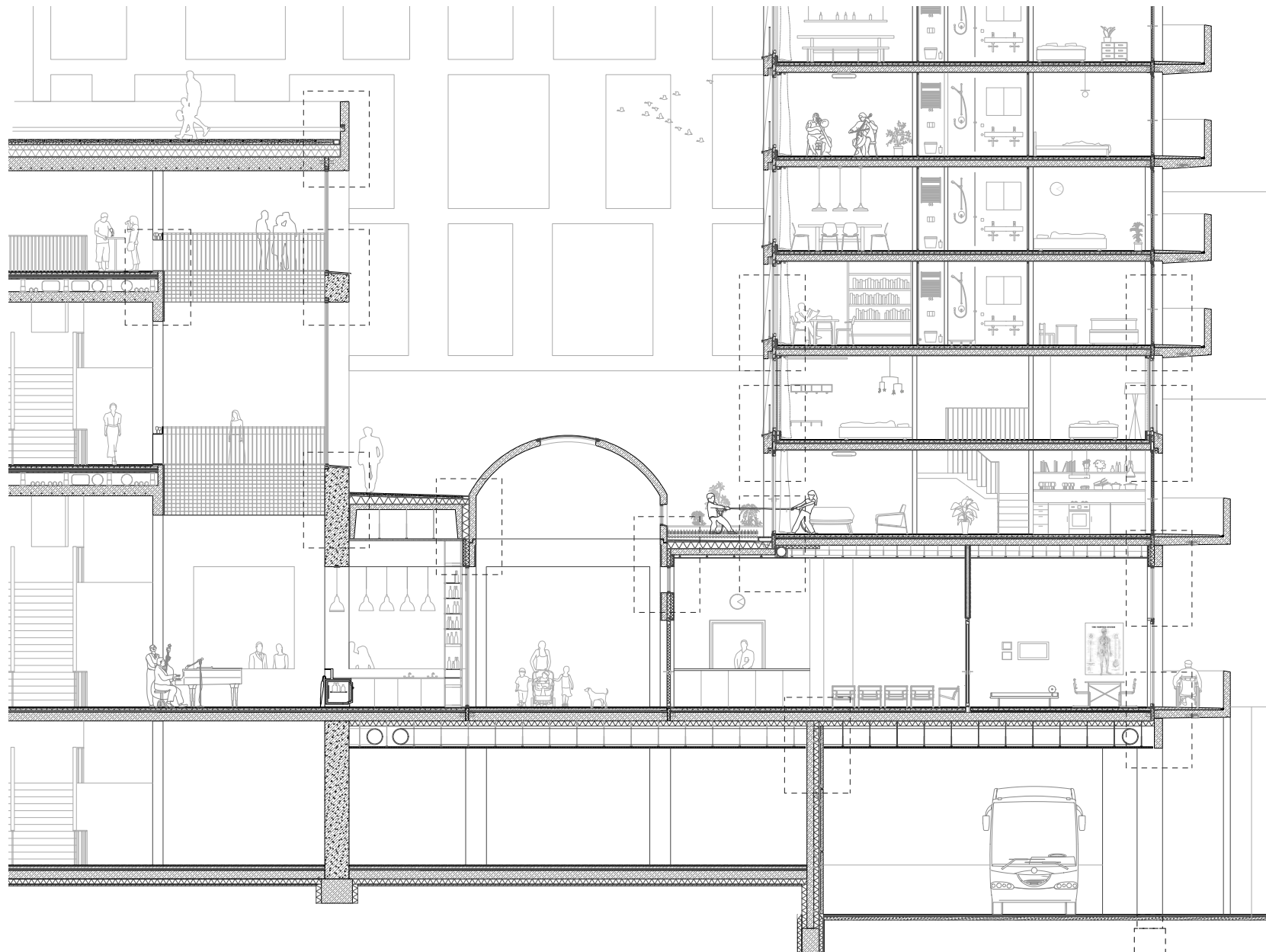
floorplan of hall
at balcony level 1
1 - 100

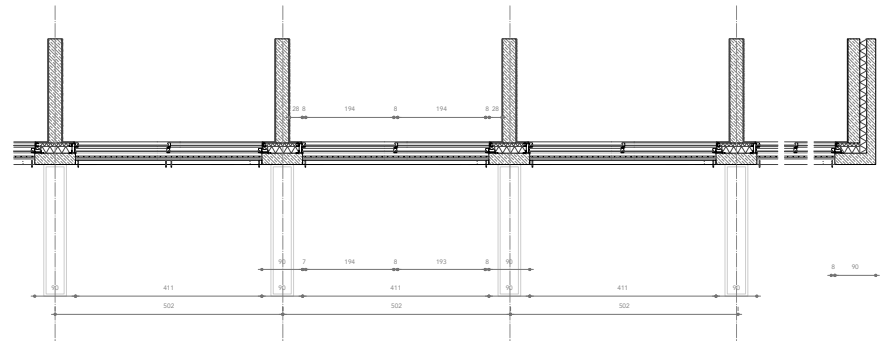
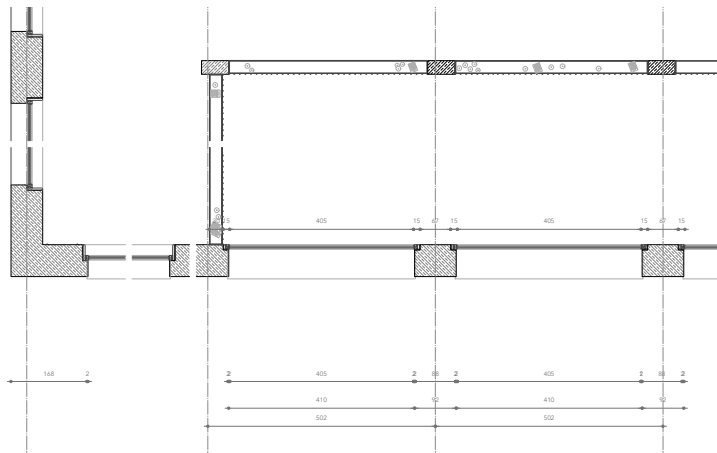
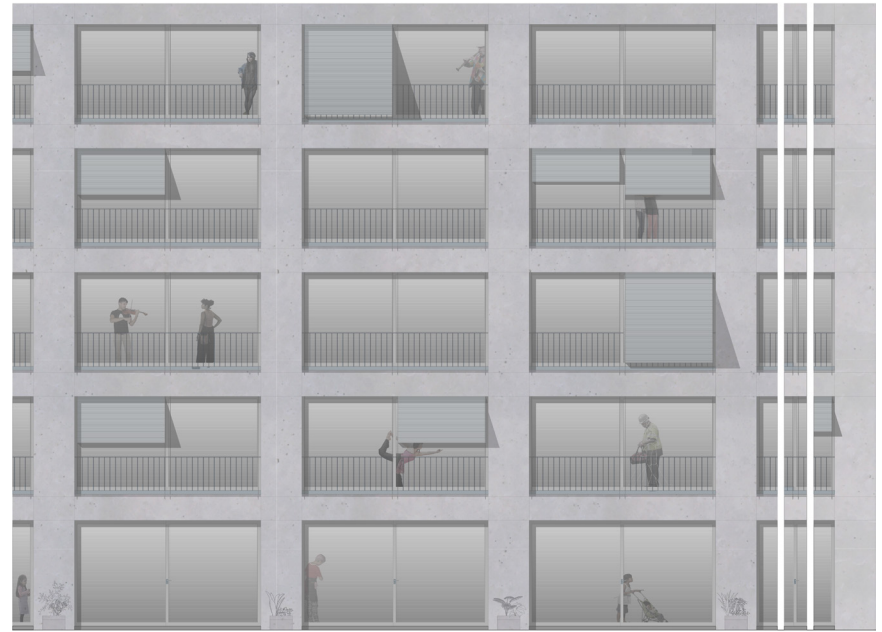
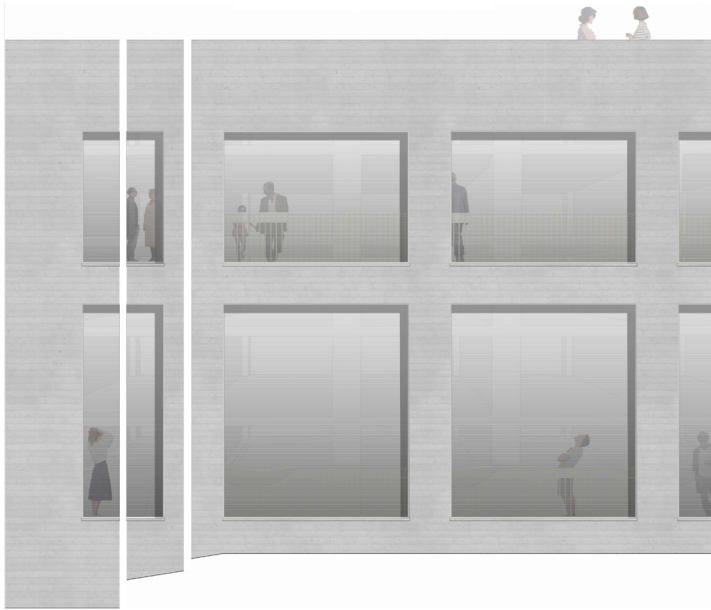


floorplan of hall
at balcony level 2
1 - 100

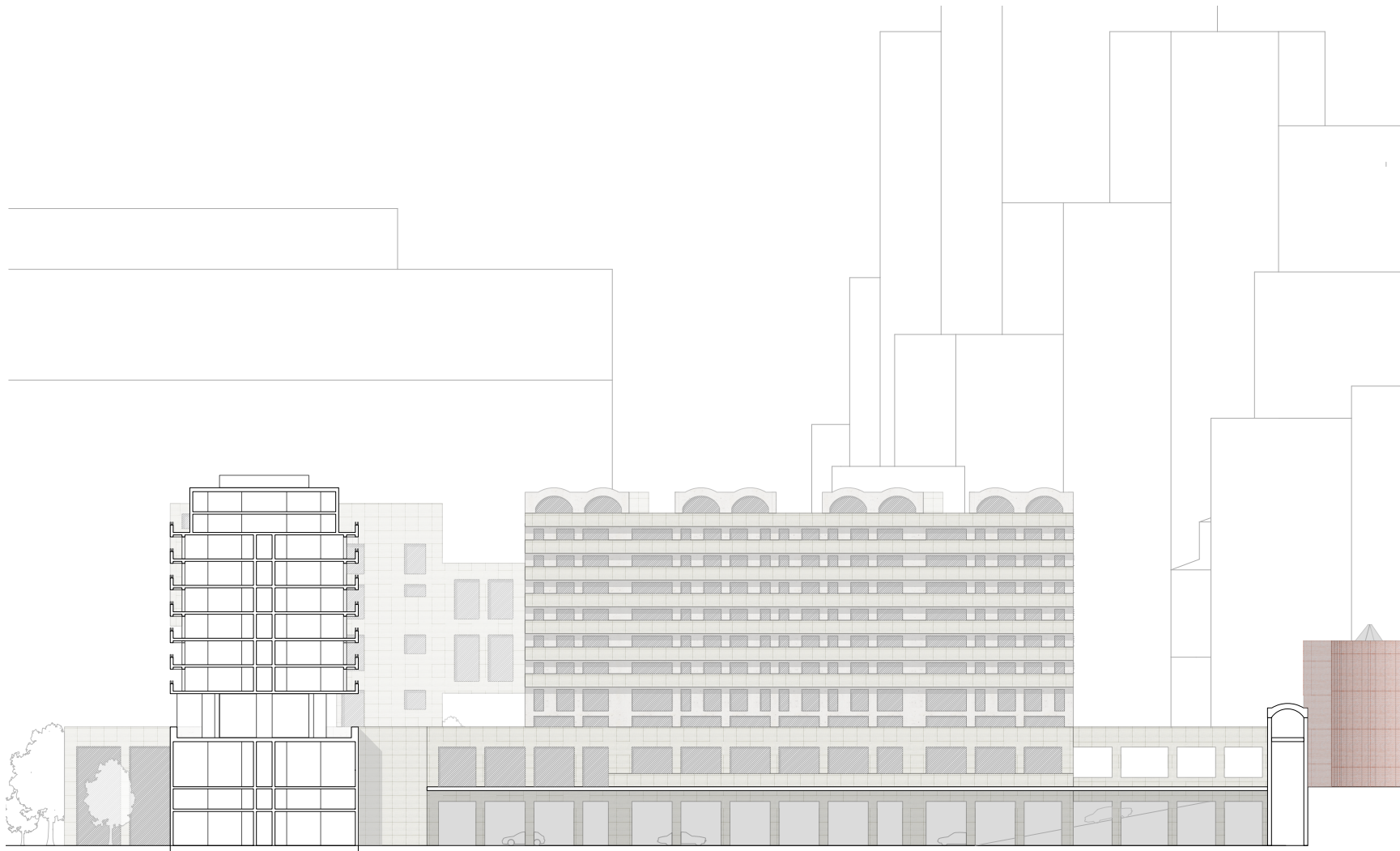


The presense of the building. View towards North



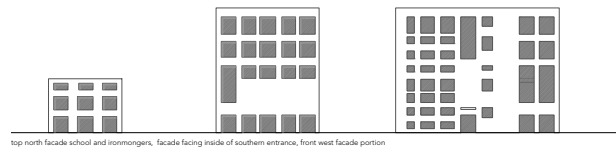
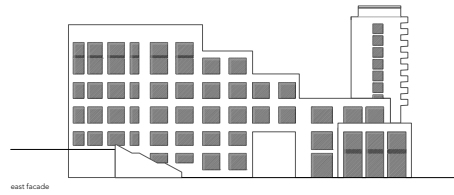
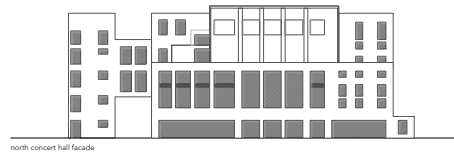
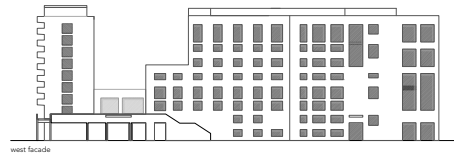
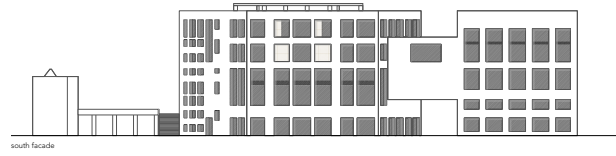


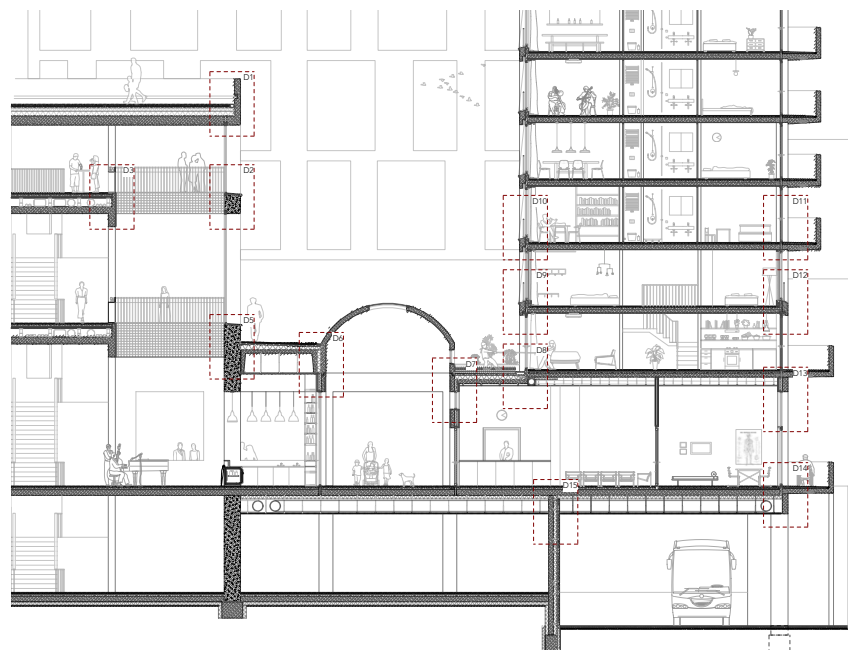
two constructional facade systems. concert hall single skin wall construction (left) and double skin wall construction of the social housing (right).



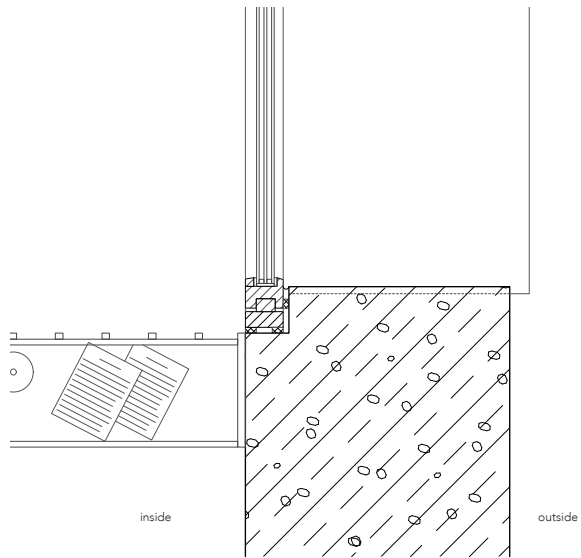
2.5 5.0 10.0

north elevation
1:250





unscaled overview of details



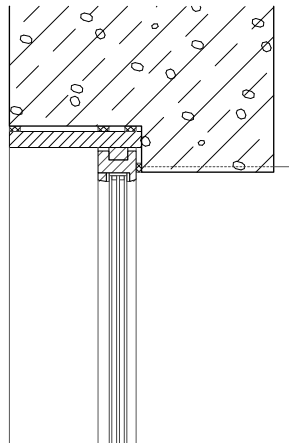
fixed glazing a :

12 mm toughened glass +
10 mm cavity + 8 mm float glass
in stained wooden window frame,
flush with inside wall

aluminium window sill, mounted in
gradient, water tide silicon joints

wall construction:

single skin construction -
550 (min.) - 700 mm exposed
insulating-concrete wall

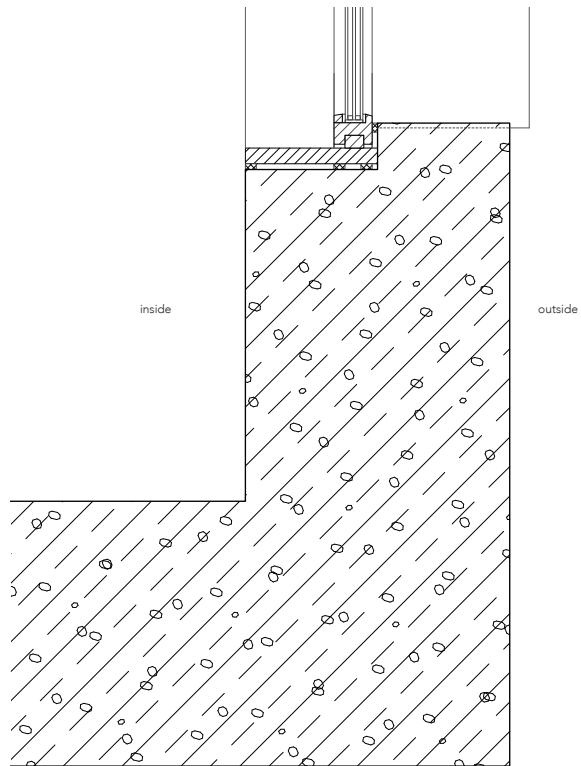


fixed glazing b:

12 mm toughened glass +
10 mm cavity + 8 mm float glass
in stained wooden window frame,
stained wooden panel as window
soffit covering towards the interior

aluminium window sill, mounted in
gradient, water tide silicon joints

horizontal detail 1 - concert hall



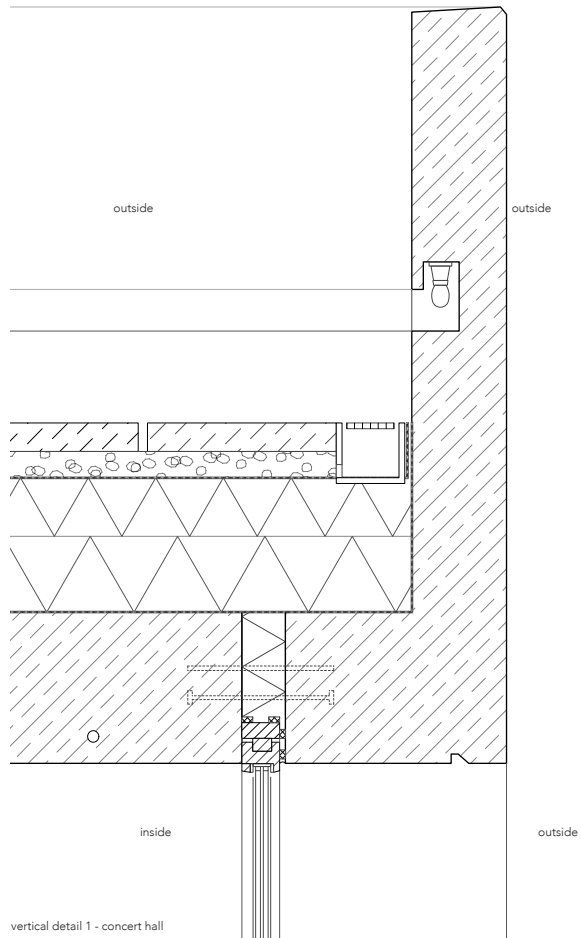
fixed glazing b:

12 mm toughened glass +
10 mm cavity + 8 mm float glass
in stained wooden window frame,
stained wooden panel as window
soffit covering towards the interior

aluminium window sill, mounted in
gradient, water tide silicon joints

wall construction:

single skin construction -
550 (min.) - 700 mm exposed
insulating-concrete wall

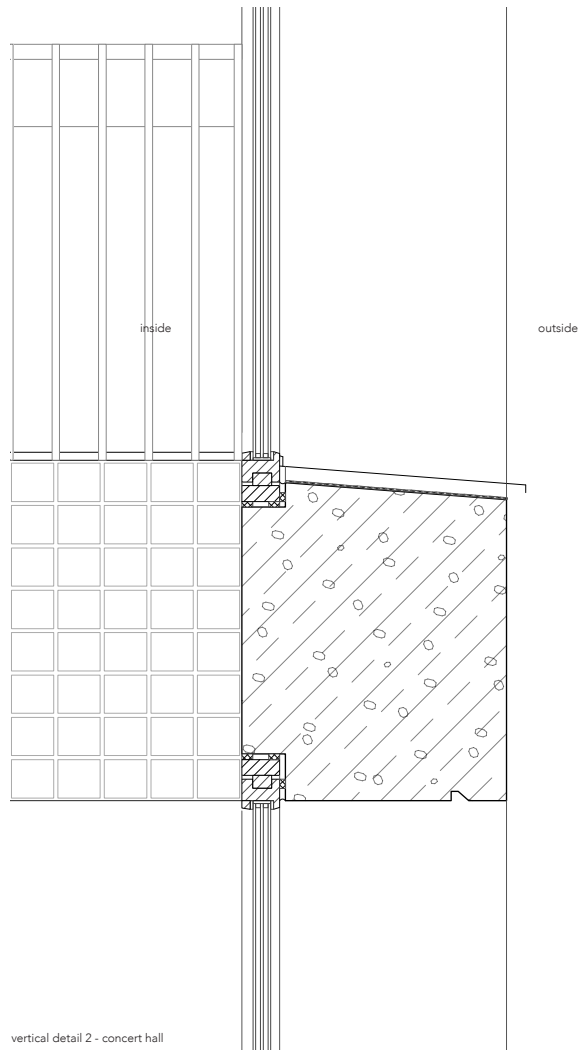


railing:

250 mm precast concrete element
with integrated cavity for light installation, and dripping nose,
fixed to floorslap via „Schöck Isokorb“- construction

roof:

75 mm reconstructed stone slabs
70 mm layer of gravel
2 mm fibre mat
min. 335 mm thermal insulation
to falls
3 mm liquid plastic seal
400 mm reinforced concrete roof
with concrete core activation



vertical detail 2 - concert hall

fixed glazing a :

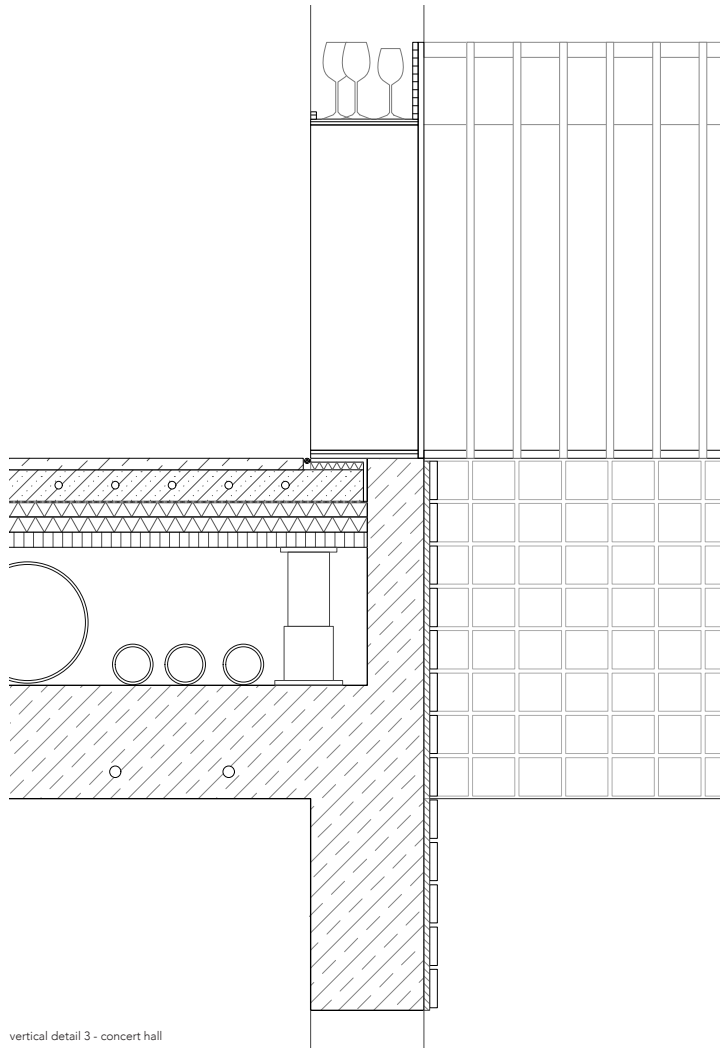
12 mm toughened glass +
10 mm cavity + 8 mm float glass
in stained wooden window frame,
flush with inside wall

aluminium window sill, mounted in
gradient, water-tide silicon joints
and safety drain

wall construction:

single skin construction -
550 (min.) - 700 mm exposed
insulating-concrete wall with drip-
ping nose

interior wall surface at parts clad-
ded in 100x110 mm glassed tiles
on mortar with exposed vertical
joints, showing the thickness of the
materials and their layering



vertical detail 3 - concert hall

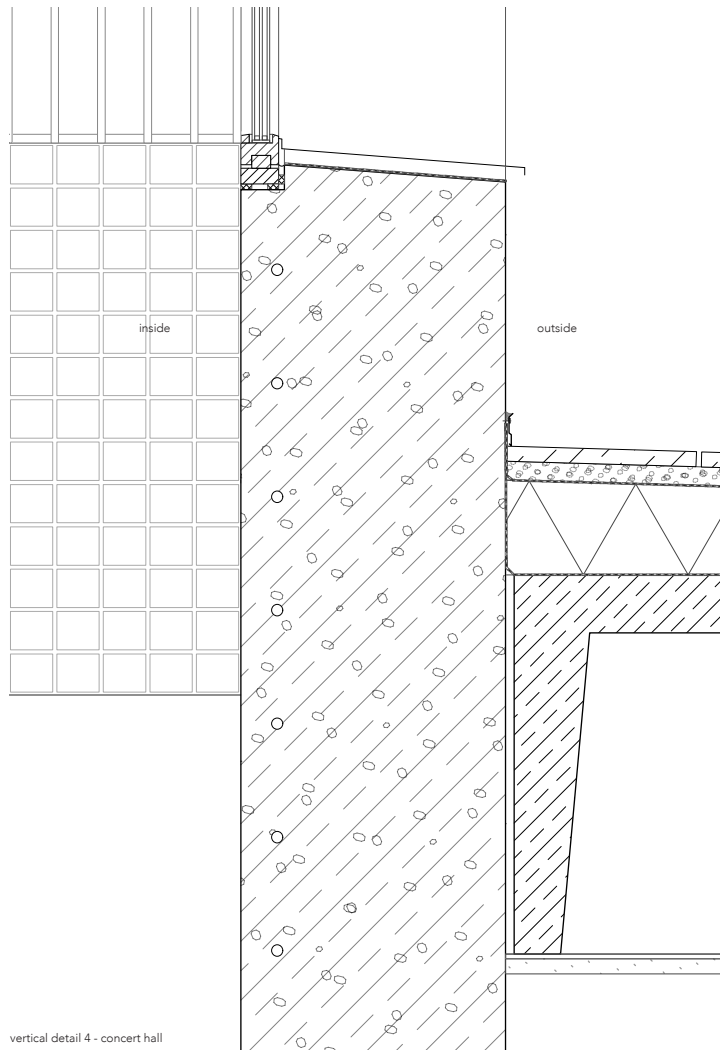
railing :

interior railings around voids as
wooden construction with L shaped
stiffening element (depth 280mm)
and fine finns
200 mm upstand for possibility to
safely place a drink etc. "on" the
railing.

interior floor:

30 mm terrazzo on
85 mm screed with underfloor
heating
seperating layer
2 x 40 mm exp. polystyrene im-
pact-sound insulation
system floor with 365 mm cavity for
installations
300 mm reinforced concrete floor
with concrete core activation.

interior wall surface at parts clad-
ded in 100x110 mm glassed tiles
on mortar with exposed vertical
joints, showing the thickness of the
materials and their layering



vertical detail 4 - concert hall

fixed glazing a :

12 mm toughened glass +
10 mm cavity + 8 mm float glass
in stained wooden window frame,
flush with inside wall

aluminium window sill, mounted in
gradient, water tide silicon joints
and safety drain

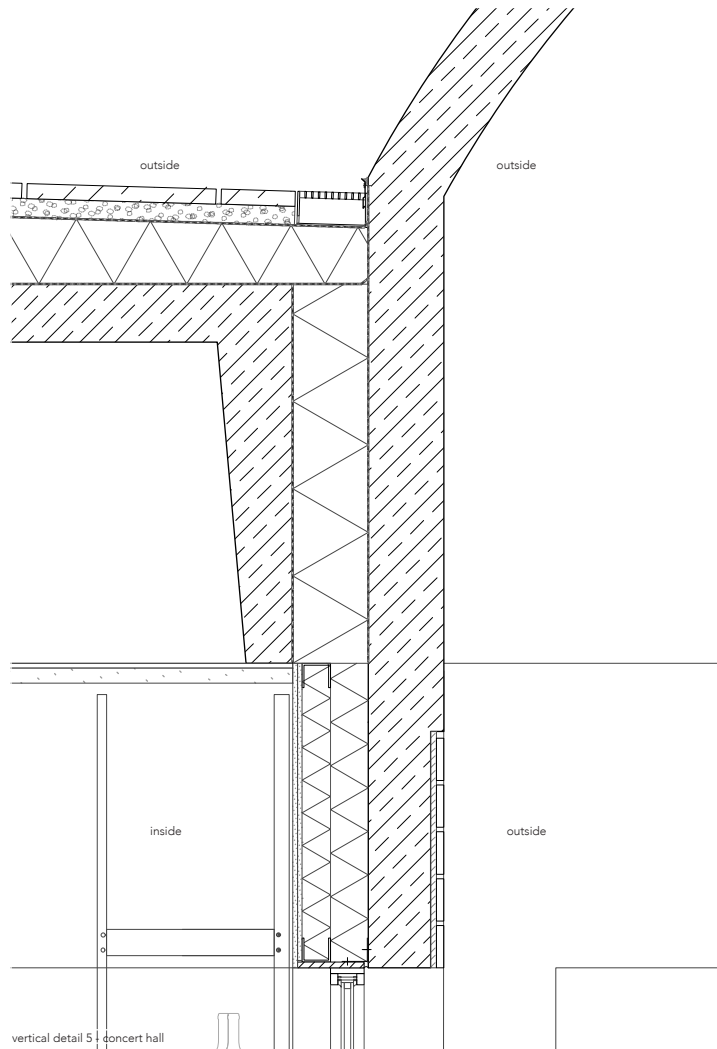
wall construction:

single skin construction -
550 (min.) - 700 mm exposed
insulating-concrete wall with exteri-
or water tight connection via glued
seal, covered by stainless steel
plate (doweled, height: 80 mm) and
silicon joint

interior wall surface at parts clad-
ded in 100x110 mm glassed tiles
on mortar with exposed vertical
joints, showing the thickness of the
materials and their layering

exterior floor construction:

40 mm concrete slabs on
50 mm layer of gravel
2 mm fibre mat
250 - 150 mm thermal insulation
to falls
3 mm liquid plastic seal
prefab. reinforced concrete
element with suspended ceiling
and 40 concrete optical tadelakt
treated gypsum board



wall and roof element:

prefabricated, vaulted reinf. concrete element
200 mm thermal insulation

recess in concrete for 100x110 mm
glassed tiles on mortar with lower,
exposed joint

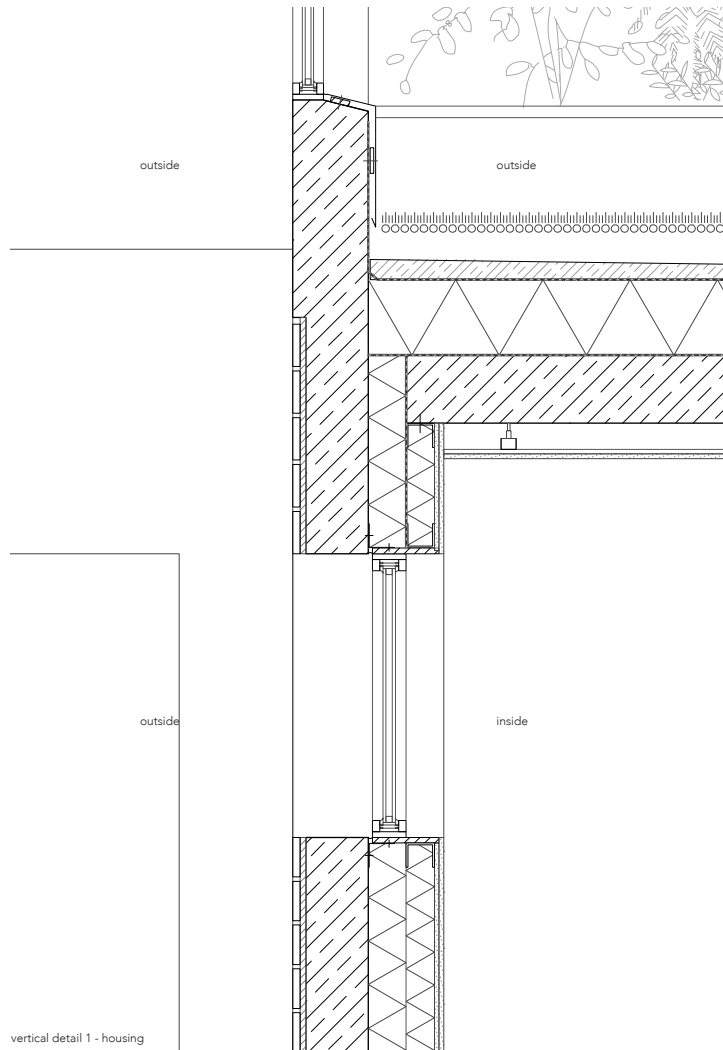
100 mm thermal insulation
75 mm insulated drywall construction with on sided, double plaster
board pannelling, painted
in RAL 7023

exterior precast ramp element:

40 mm concrete slabs on
50 mm layer of gravel
2 mm fibre mat
250 - 150 mm thermal insulation
to falls
3 mm liquid plastic seal
water-tide connection via glued
seal, covered by stainless steel
plate (doweled) and silicon joint
175 x 85 mm drainage channel
prefab. reinforced concrete
element with suspended ceiling
and 40 concrete optique tadelakt
treated gypsum board

fixed glazing:

double layer, translucent safty
glazing in polished, stainless steel
window frame.
stainless steel shelving system for
bar.



roof - extensive planting:

120 mm layer of vegetation
 drainage layer in falls - water bearing and protective mat
 sealing layer
 200 mm polyurethane rigid foam thermal insulation to falls
 vapour barrier
 180 mm reinforced concrete floor

wall and roof element:

prefabricated, vaulted reinf. concrete element
 water-tight connection via glued seal, covered by stainless steel plate (doweled) with

fixed glazing a:

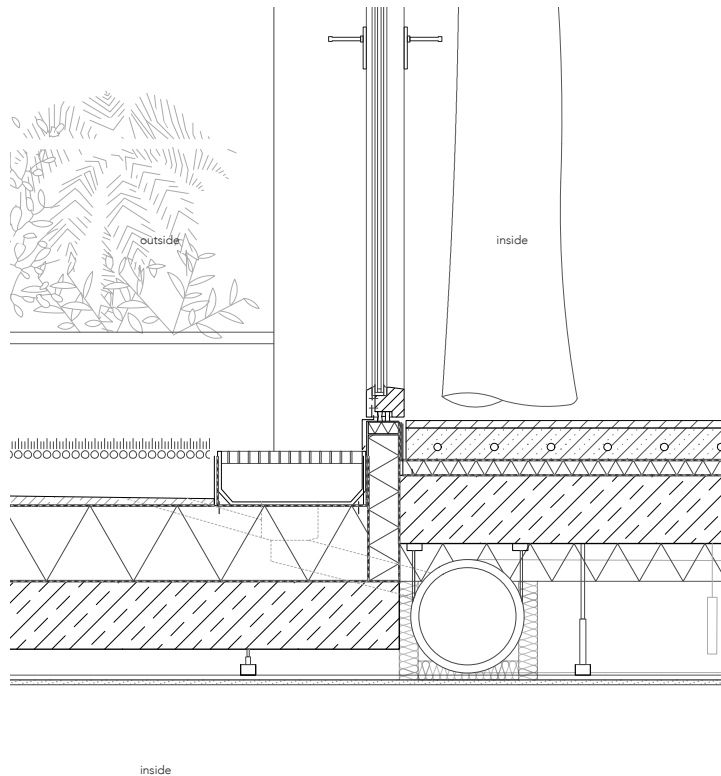
double layer glazing incoated aluminium window frame.

recess in concrete for 100x110 mm glassed tiles on mortar with lower, exposed joint

100 mm thermal insulation
 75 mm insulated drywall construction with on sided, double plaster board panneling, painted in white

fixed glazing:

double layer, translucent safety glazing in polished, stainless steel window frame.
 stainless steel shelving system for bar.



casement: double glazing in
wooden-aluminium frame, coated
towards the outside
aluminium door handles

interior glare protection: fabric
curtain

floor:

20 mm oak parquet
85 mm cement creed with
under-floor heating
seperating layer
40 mm sound impact insulation
plastic sealing layer on
180 mm reinforced concrete
floor slab

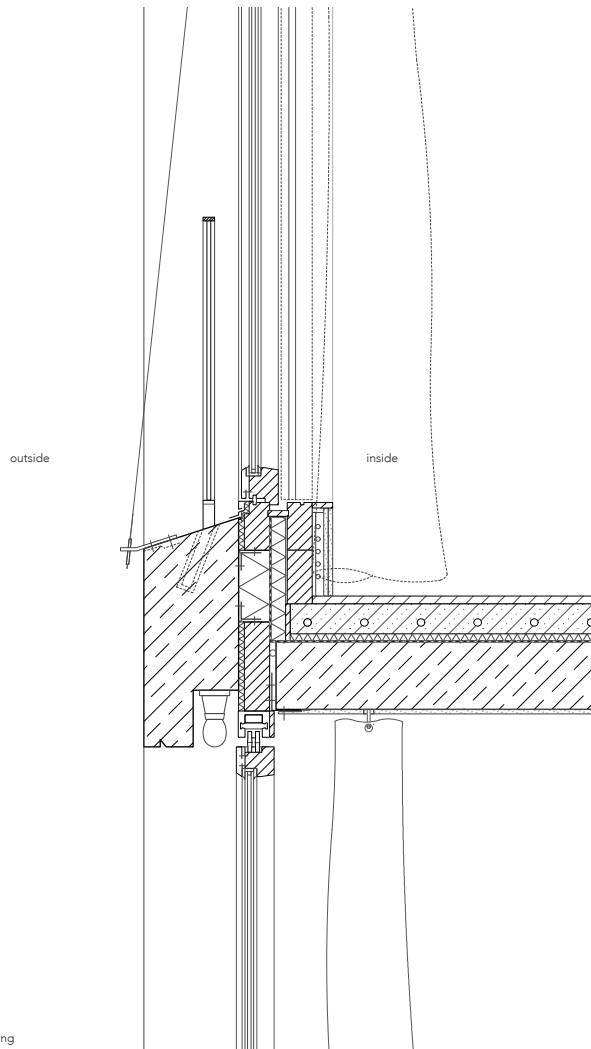
false ceiling:
flexible suspension brackets
15 mm expanded glass granulate
acoustic soffit, painted

Ø300 mm draining pipe, insulated

roof - extensive planting:

120 mm layer of vegetation
drainage layer in falls - water bea-
ring and protective mat
sealing layer
200 mm polyurethane rigid foam
thermal insulation to falls
vapour barrier
180 mm reinforced concrete floor
flexible suspension brackets
15mm expanded glass granulate
acoustic soffit

400 x 150 draining channel with
lateral outlet to main drainig pipe (
hung and insulated)



vertical detail 3 - housing

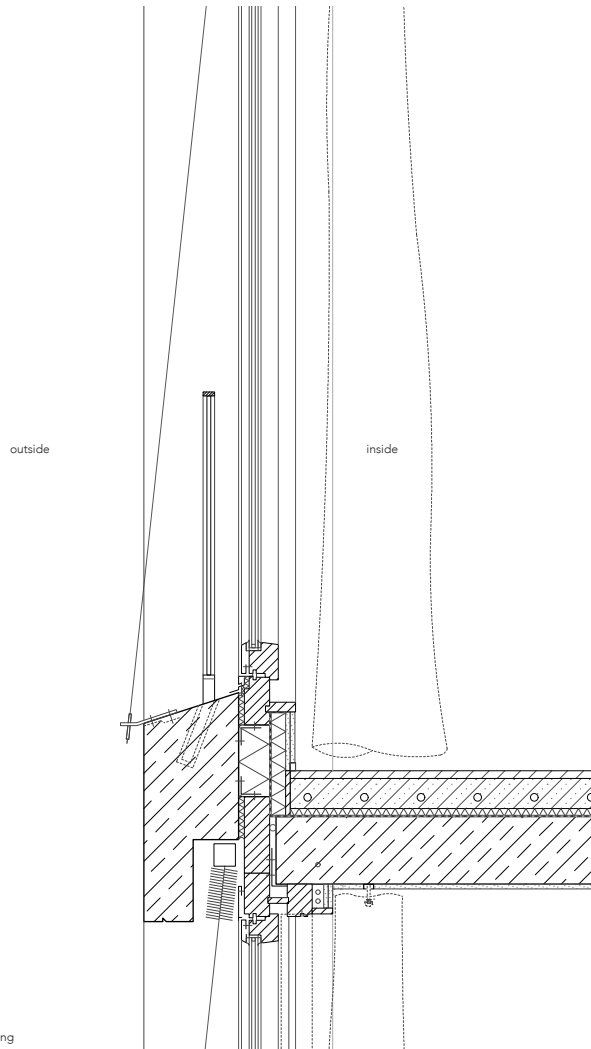
wall:

slatted sun blind, 70 mm aluminium
handrail: 40/10 mm steel flat
Ø 10 mm steel rod, powder-coated
steel profile
250 mm precast concrete element
with dripping nose and recess for
light installation
(as part of self bearing concrete
fassade, connected and anchored to
floor slabs on the short side of the
building block)

80 mm thermal insulation/wooden
door or window element
vapour barrier
30 mm thermal insulation between
40/80 mm battens
wooden sliding door element, ins-
tallation channel, covered with
25 mm double layer plasterboard,
painted with wooden horizontal
cover.
double glazed sliding window/
door system in aluminium-wooden
frame, powder coated towards the
exterior
interior glare protection: fabric
curtain in railway system

floor:

20 mm oak parquet
85 mm cement creed with
under-floor heating
seperating layer
40 mm sound impact insulation
plastic sealing layer on
180 mm reinforced concrete
floor slab
12,5mm plaster gypsum board,
painted with railway system for
curtain



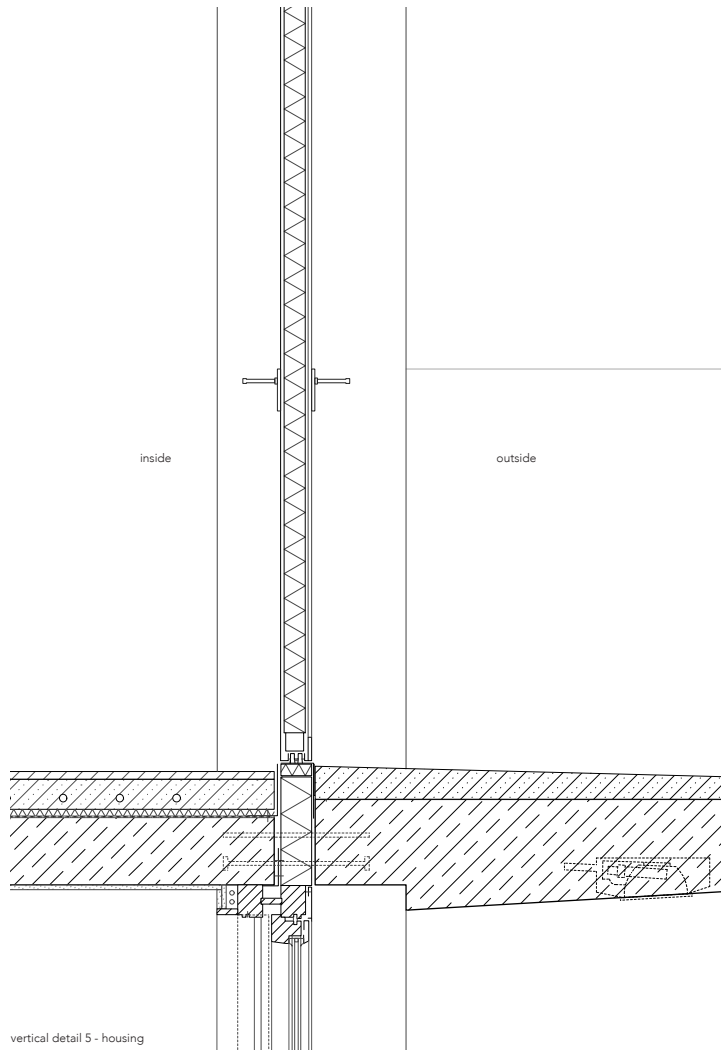
wall:

slatted sun blind, 70 mm aluminium
handrail: 40/10 mm steel flat
Ø 10 mm steel rod, powder-coated
steel profile
250 mm precast concrete element
with dripping nose and recess for
light installation
(as part of self bearing concrete
fassade, connected and ankered to
floor slabs on the short side of the
building block.)

80 mm thermal insulation/wooden
door or window element
vapour barrier
30 mm thermal insulation between
40/80 mm battens
wooden sliding door elemnt, instal-
lation channel, covered with
25 mm double layer plasterboard,
painted with wooden horizontal
cover.
double glazed sliding window/
door system in aluminum-wooden
frame, powder coated towards the
exterior
interior glare protection: fabric
curtain in railway system

floor:

20 mm oak parquet
85 mm cement creed with
under-floor heating
seperating layer
40 mm sound impact insulation
plastic sealing layer on
180 mm reinforced concrete
floor slab
12,5mm plaster gypsum board,
painted with railway system for
curtain



wall:

top:
85 mm stained wooden door, insulated with aluminium casement

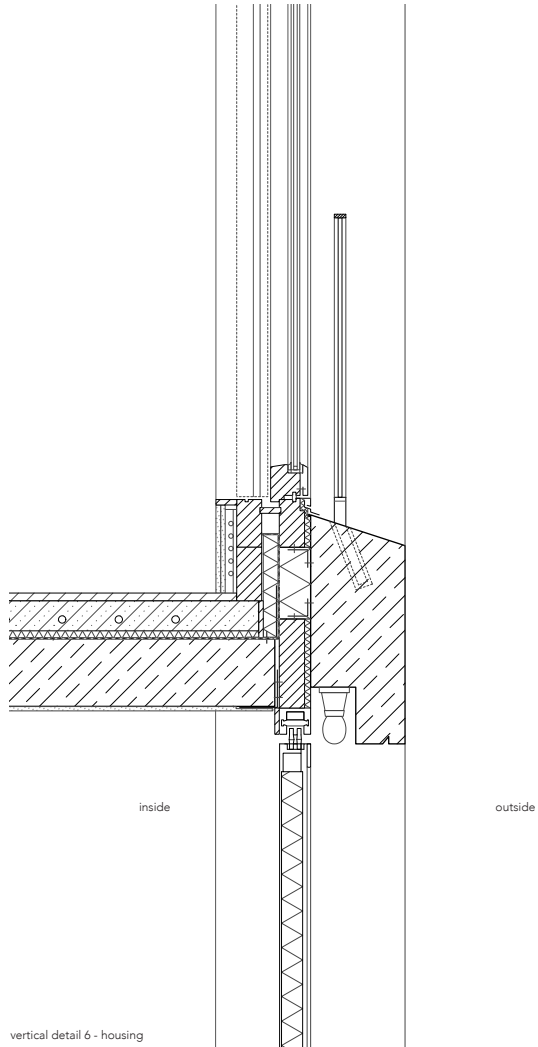
bottom:
double glazed sliding window/door system in aluminum-wooden frame, powder coated towards the exterior
interior small installation channel covered in wooden panel and plaster board

floor:

20 mm oak parquet
85 mm cement screed with under-floor heating
separating layer
40 mm sound impact insulation
plastic sealing layer on
180 mm reinforced concrete floor slab
12,5mm plaster gypsum board, painted with railway system for curtain

balcony:

85 mm screed to falls
precast reinforced concrete element with recess for pre-installed LED light system
precast element connected to floor slab via 'Schöck Isokorb' construction



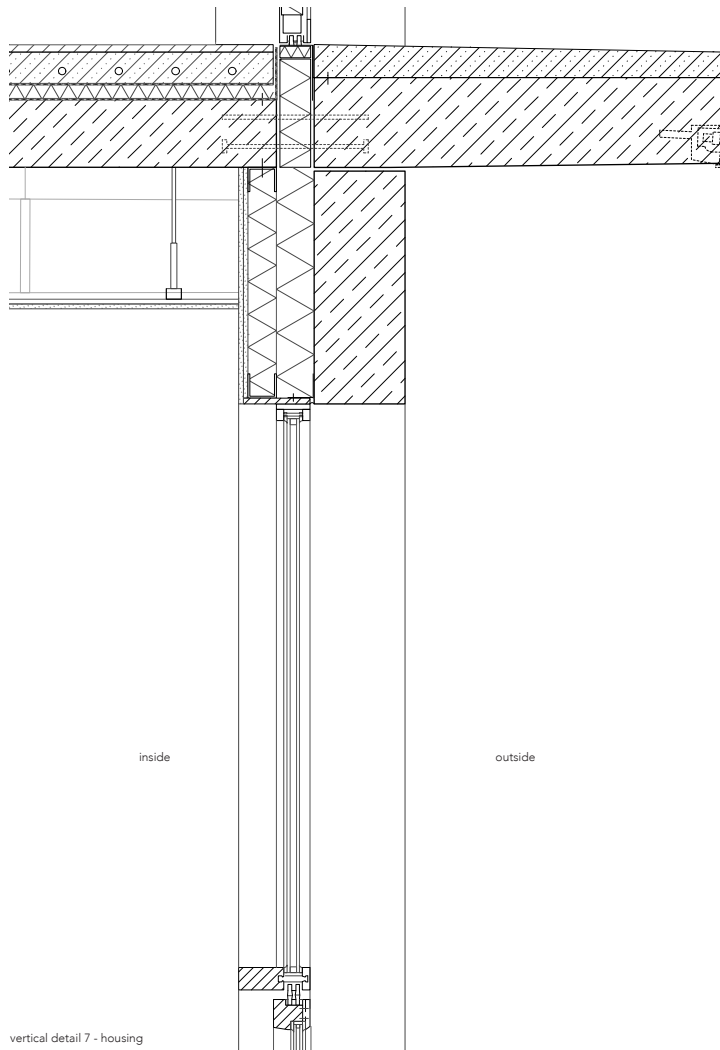
wall:

slatted sun blind, 70 mm aluminium
handrail: 40/10 mm steel flat
Ø 10 mm steel rod, powder-coated
steel profile
250 mm precast concrete element
with dripping nose and recess for
light installation
(as part of self bearing concrete
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door or window element
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cover.
double glazed sliding window/
door system in aluminum-wooden
frame, powder coated towards the
exterior
interior glare protection: fabric
curtain in railway system

floor:

20 mm oak parquet
85 mm cement creed with
under-floor heating
seperating layer
40 mm sound impact insulation
plastic sealing layer on
180 mm reinforced concrete
floor slab
12,5mm plaster gypsum board,
painted with railway system for
curtain



vertical detail 7 - housing

floor:

20 mm oak parquet
85 mm cement creed with
under-floor heating
seperating layer
40 mm sound impact insulation
plastic sealing layer on
180 mm reinforced concrete
floor slab

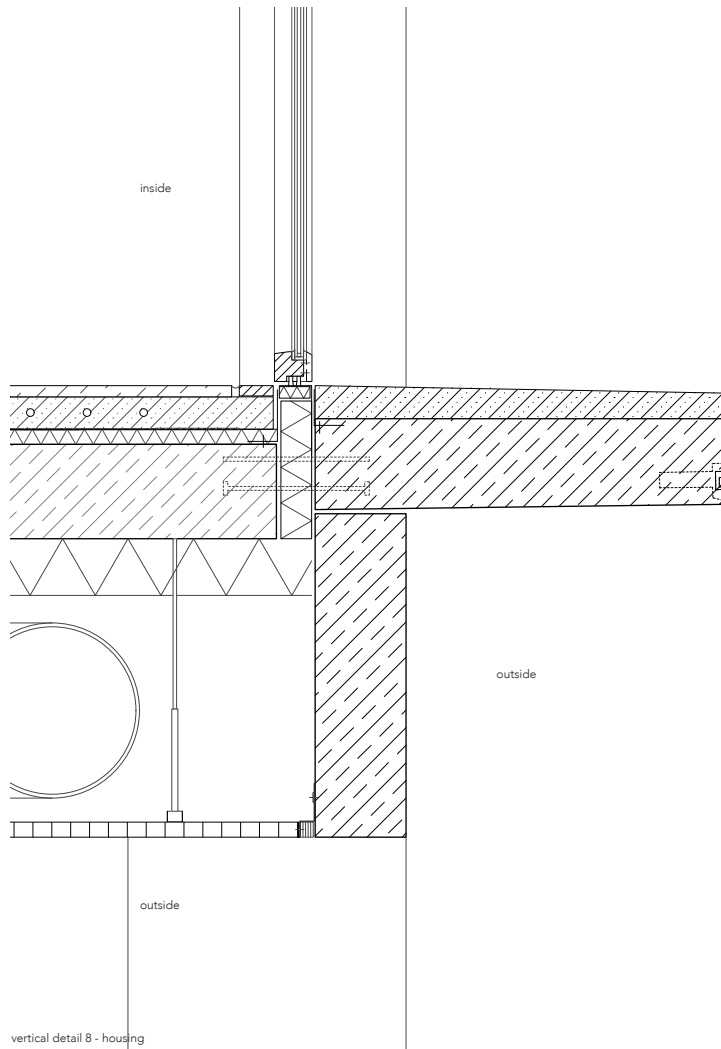
false ceiling:
flexible suspension brackets
15 mm expanded glass granulate
acoustic soffit, painted

balcony:

85 mm screed to falls
precast reinforced concrete ele-
ment with recess for
pre-installed LED light system
precast element connected to floor
slab via 'Schöck Isokorb' construc-
tion

wall:

245 mm prefab. reinforced concrete
beam
100 mm thermal insulation
75 mm drywall construction, insula-
ted with
25 mm double layer, plaster board,
painted and wooden bottom cover
wood-aluminium post and rail
fassade with double, fixed glazing
(top) and doubled safty glass door
(bottom)



floor:

30 mm marble tiles on
85 mm cement screed with
under-floor heating
separating layer
40 mm sound impact insulation
plastic sealing layer on
240 mm reinforced concrete
floor slab

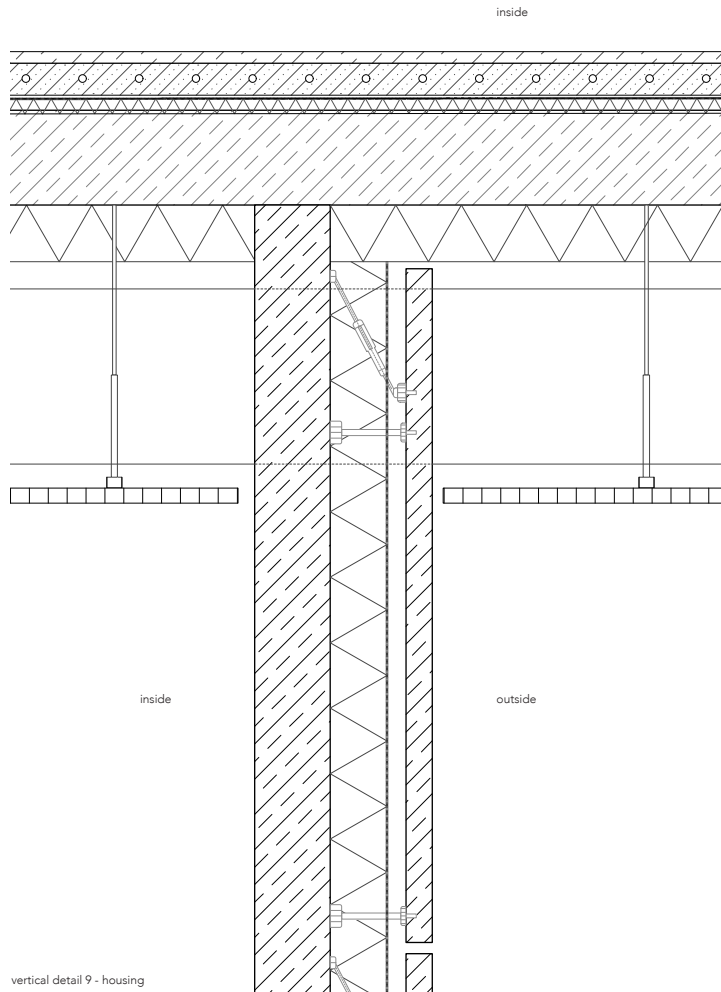
false ceiling:
flexible suspension brackets
for installation space
40 mm steel grating mesh, coated
insect screen
150 mm thermal insulation, glued

balcony:

85 mm screed to falls
precast reinforced concrete ele-
ment with recess for
pre-installed LED light system
precast element connected to floor
slab via 'Schöck Isokorb' construc-
tion

wall:

245 mm prefab. reinforced concrete
beam
100 mm thermal insulation
75 mm drywall construction, insula-
ted with
25 mm double layer, plaster board,
painted and wooden bottom cover
wood-aluminium post and rail
facade with double, fixed glazing
(top) and doubled safety glass door
(bottom)



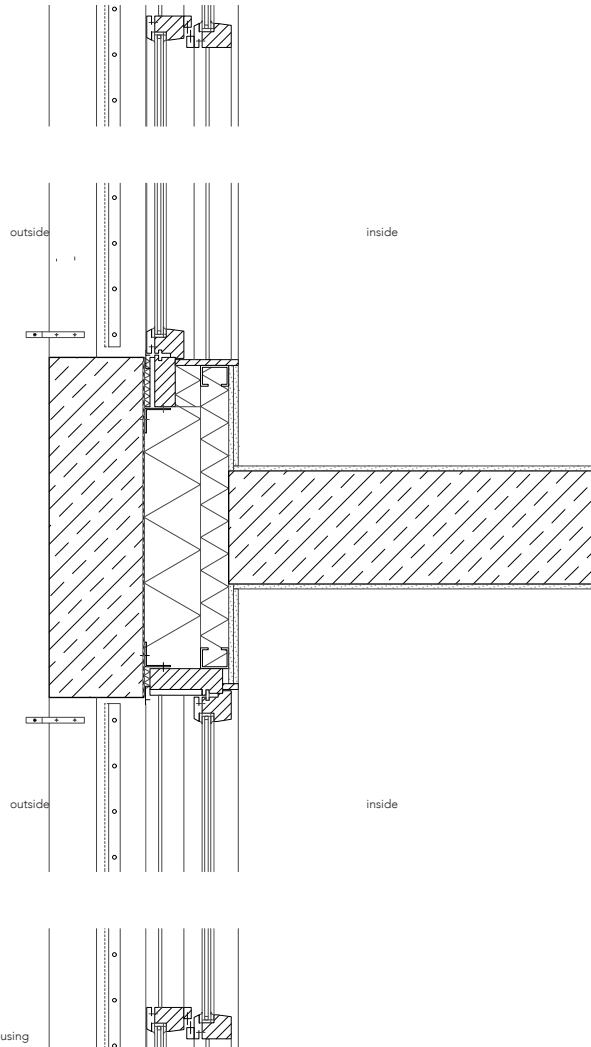
floor:

30 mm marble tiles on
85 mm cement creed with
under-floor heating
seperating layer
40 mm sound impact insulation
plastic sealing layer on
240 mm reinforced concrete
floor slab
150 mm thermal insulation, glued

false ceiling:
flexible suspension brackets
for installation space
40 mm steel grating mesh, coated
insect screen

wall:

70 mm fibre reinforced precast
concrete concrete fascia
fixed with facade bolts
50 mm preventilation air layer
sealing layer on
150 mm thermal insulation
200 mm reinforced concrete wall

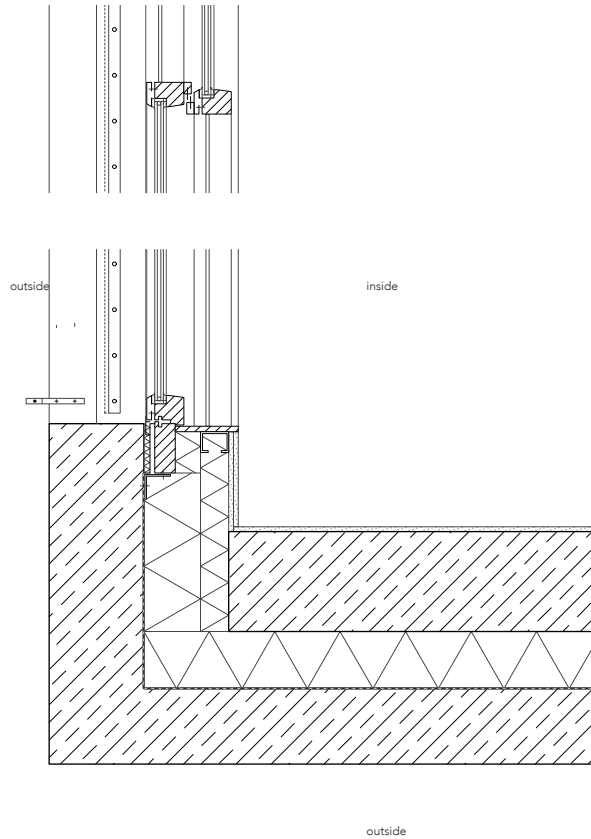


wall:

slatted sun blind, system
(70 mm aluminium)

handrail: 40/10 mm steel flat
Ø 10 mm steel rod,
powder-coated steel profile
250 mm precast concrete element
(as part of self bearing concrete
fassade, connected and ancered to
floor slabs on the short side of the
building block)
vapour barrier
80 mm thermal insulation
double glazed slinding window
element:
2x 6 mm tolgheemrmd glass + 12
mm cavity
softwood and aluminuim window
frame, coated towards the exterior

75 mm thermal insulation between
drywall conctruction with
25 mm double layer plasterboard
panneling, painted



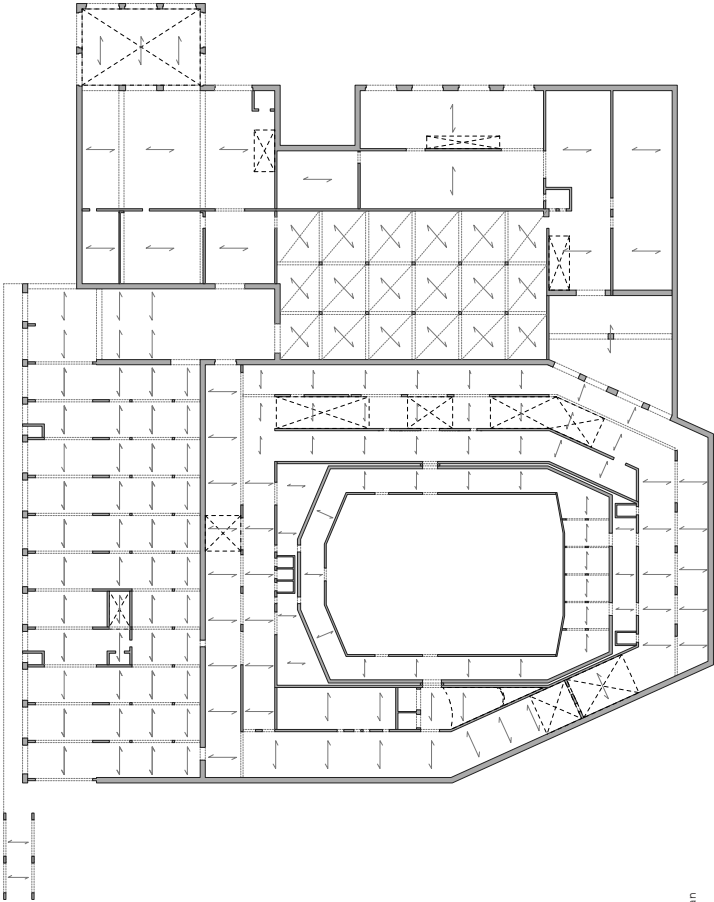
wall:

slatted sun blind, system
(70 mm aluminium)

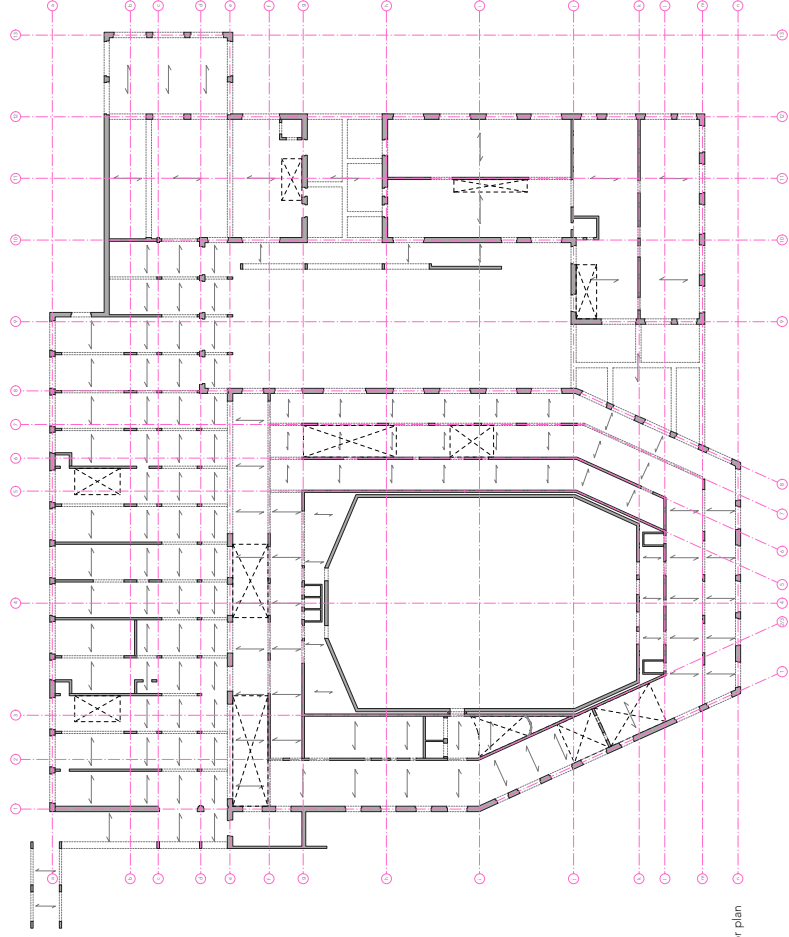
handrail: 40/10 mm steel flat
Ø 10 mm steel rod,
powder-coated steel profile
250 mm precast concrete element
(as part of self bearing concrete
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vapour barrier
80 mm thermal insulation
double glazed sliding window
element:
2x 6 mm toughened glass + 12
mm cavity
softwood and aluminium window
frame, coated towards the exterior

75 mm thermal insulation between
drywall construction with
25 mm double layer plasterboard
paneling, painted

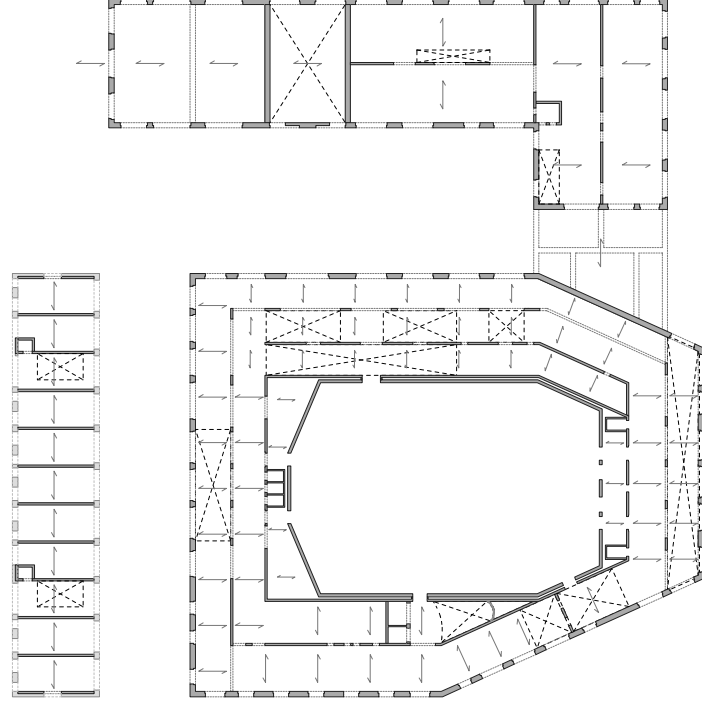
structural plans



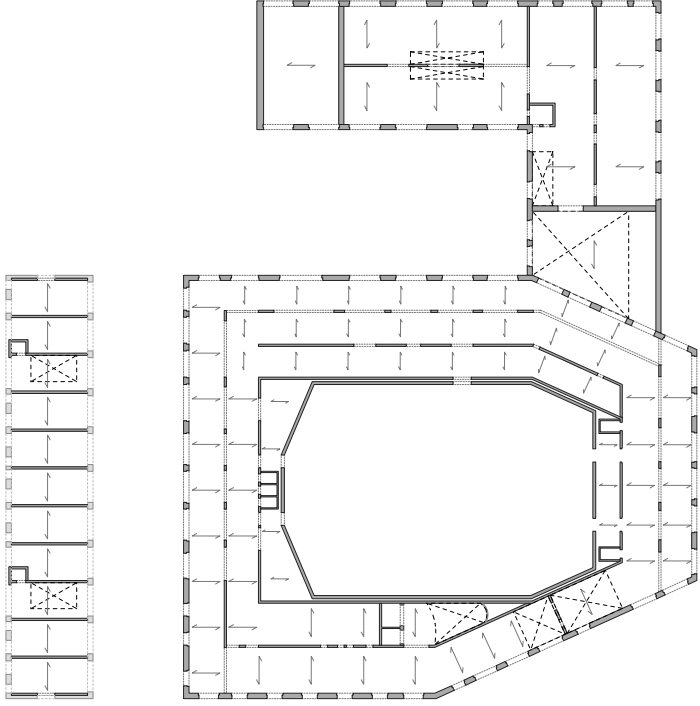
basement plan



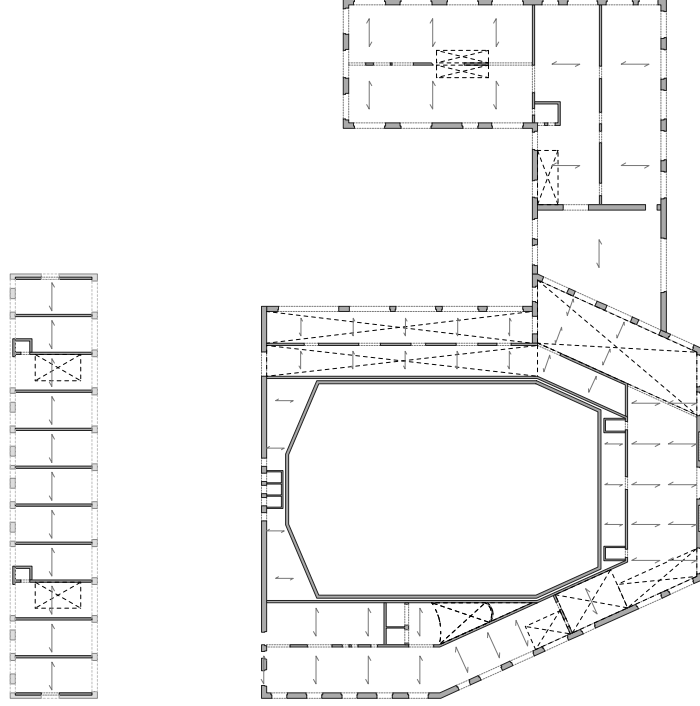
ground floor plan



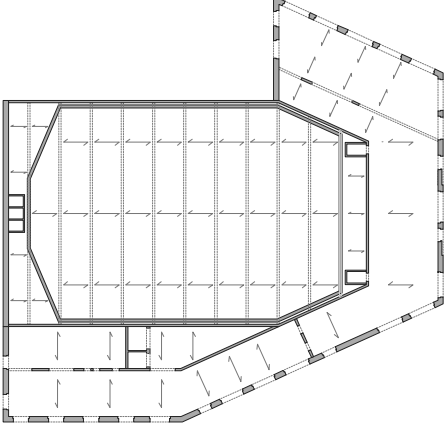
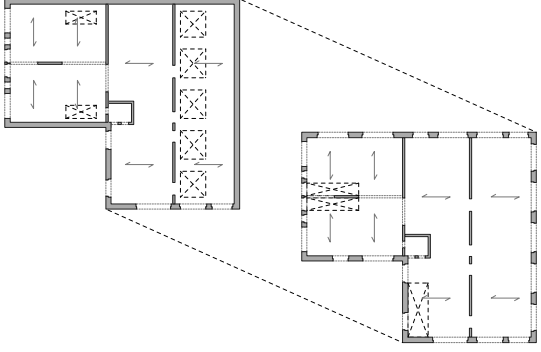
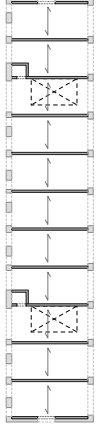
first balcony floor plan



second balcony floor plan

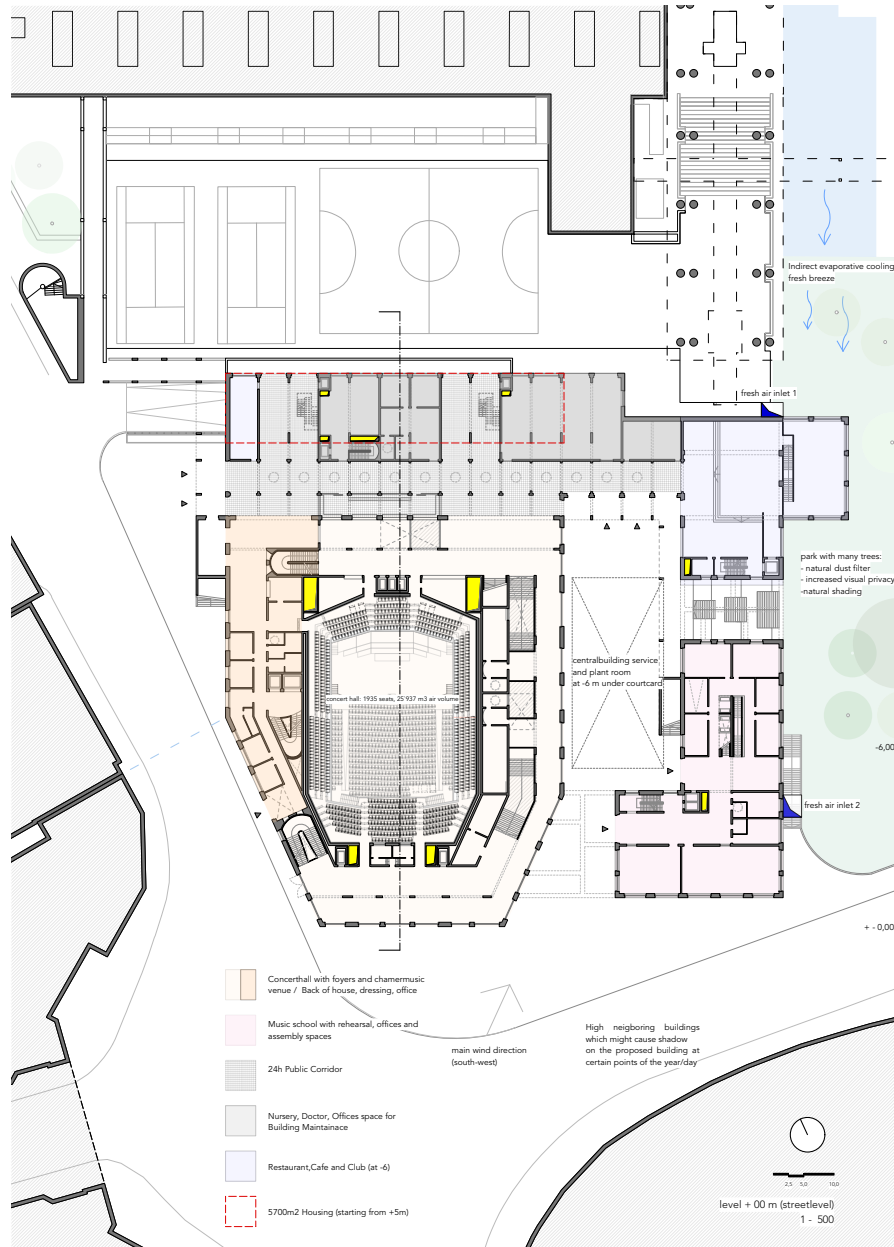


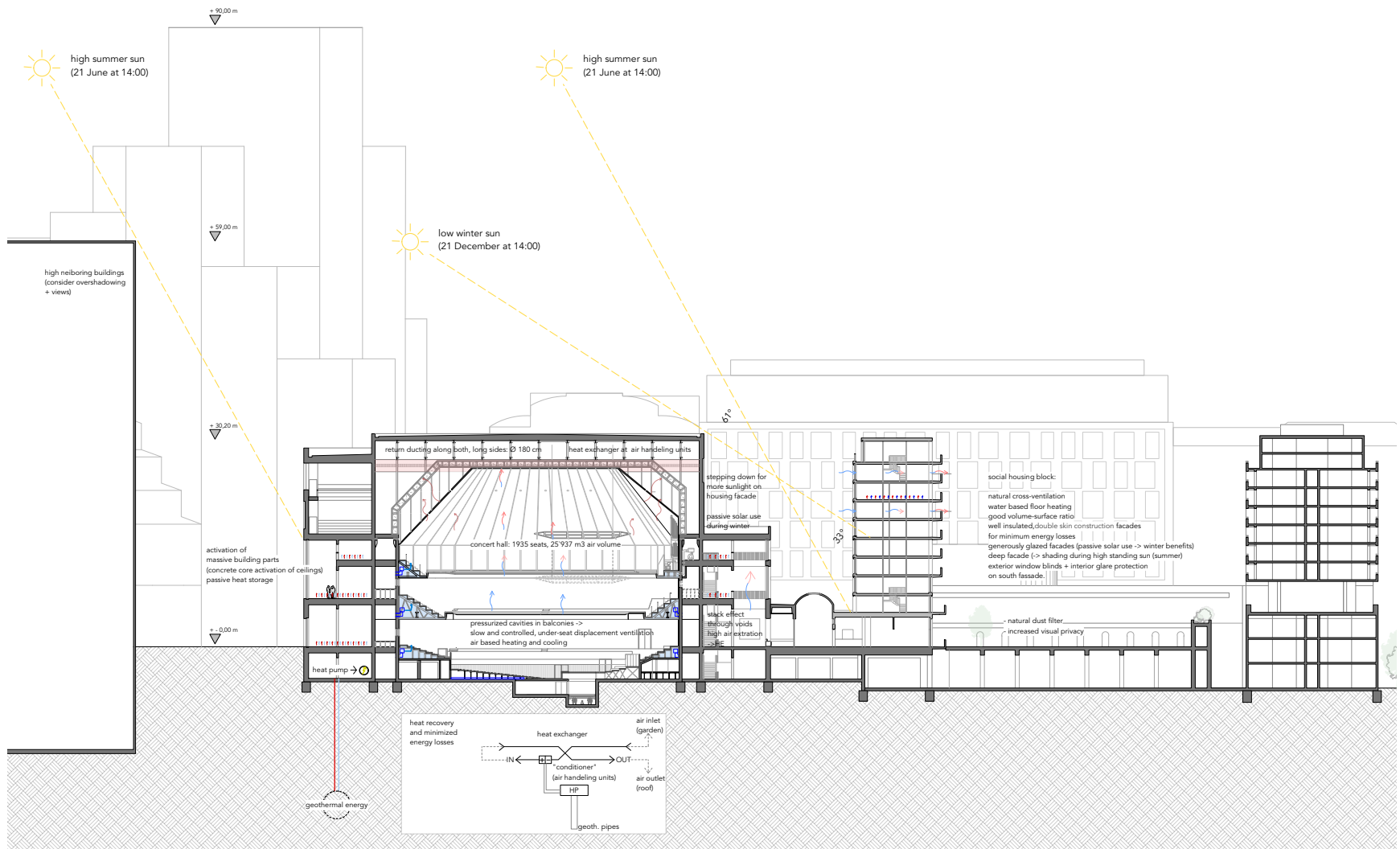
chamber music floor plan



second chambermusic floor plan

climate plans

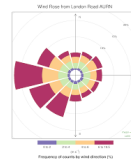




ambitions

- good U-value of building envelope and high levels of air tightness to reduce external heat gains during summer
- high thermal mass of the building: building component activation (massive walls and ceilings)
- use of geothermal energy (+ heatpump)

- sunprotection of the facade, depth reacting to its respective orientation
- maximum use of daylight (saving of energy for artificial light)
- no overheating, overnight cooling
- utilizing passive cooling strategies like natural ventilation (stack effect in central stair case), air cooling, and shades to reduce the demand for mechanical cooling while maintaining thermal comfort



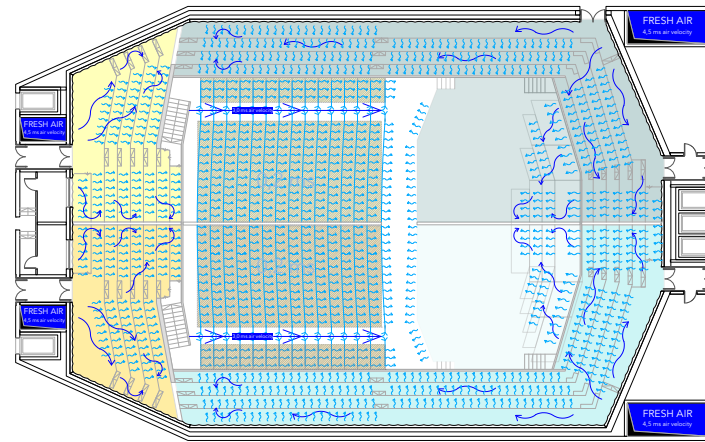
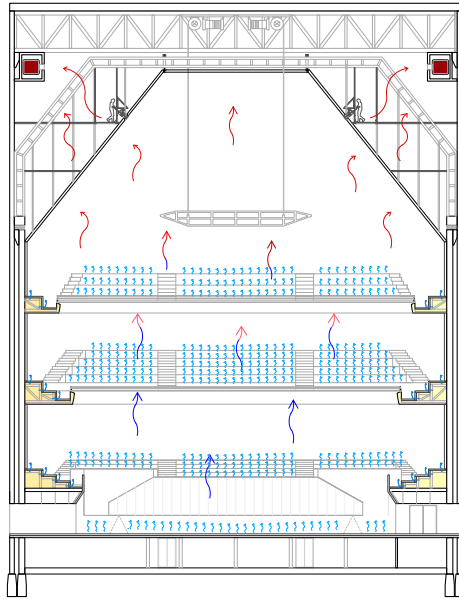
geothermal source, close to our site:

Europe's largest heat pump system came online today at London's latest shopping centre One New Change, sparking hopes that shops and offices across the capital could soon display the low-carbon technology.

More than 150 metres beneath city shoppers' Jimmy Choo, some 60km of pipes are constantly transferring heat to and from an underground aquifer, providing a source of natural heating and cooling for the shopping centre.

An intelligent control device enables the system to redirect heat from warmer to colder areas, improving the eight-floor building's energy efficiency.

The system is the product of three years' work between British developers Geothermal International and building owner Land Securities, and is expected to save the UK's largest commercial property company 350 tonnes of CO2 a year.



Compressed air cavity for under seat displacement ventilation

Section 1.a

Section 3

Section 2.a

Section 4

Duct based ventilation system for under-seat displacement ventilation

Section 1.b

Section 2.b

FRESH AIR
0.5 m/s air velocity

FRESH AIR
0.5 m/s air velocity

FRESH AIR
0.5 m/s air velocity

FRESH AIR
0.5 m/s air velocity

fire escape plans

Strategies:

- horizontal escaping routes are always provided in min. two directions that differ in more than 45° from each other. They are calculated and dimensioned in sufficient width (5mm per person)
- no further horizontal travel distance than 45 m until next protected compartment or story exit / final exit.
- in the very few moments in which escaping is only possible in one direction, a maximum distance of 18 m to the next compartment / final exit is never exceeded.
- inside the concert hall the travel distance of max. 32 m is not exceeded at any point.
- at no compartment and building level there are moments where more than 600 people have to escape simultaneously.
- through the escape route areas, a phased horizontal escaping shall be assumed.
- all necessary escape areas and corridors within the layout are protected and fitted by automated sprinkler systems, an HVAC based pressure differential systems (pressurization) and ventilation systems for heat and smoke extraction
- smoke control systems in means of smoke and fire curtains protect the different escape compartments from each other.
- fire shutters operated by smoke protectors.
- all escape stairs are dimensioned according to maximum number of people that, in a phased escaping, are to be expected to escape through them
- in order to fit them for escape, they are all protected by automated sprinkler systems, pressure differential systems (pressurization) and ventilation systems for heat and smoke extraction
- where stairways are not directly connected to an external wall, their final exit is achieved through protected corridors/protected foyer spaces including beforehand named, protective fire and smoke barriers.
- an EVC (emergency voice communication system) system throughout the entire building complex is sought to be installed
- for evacuation and fire fighting purposes, all lifts are fitted and constructed in fire protected manner (own box in box construction) and dimensioned in order to serve as suitable fire evacuation-lifts.
- most areas are directly accessible to mobile fire appliances that are operating from outside the building.
- To escape from the apartments, the furthest traveling distance to escape from the apartment (in the two story type) is less than 18 m.

